

Star-Kist Samoa, Inc.
NPDES Permit No. AS000019

Date Issued: September 24, 1992
Effective Date: October 27, 1992
Expiration Date: October 26, 1997

Effluent Limits (see attached)

BOD Monitoring only. No limits.

TP & TN

Sample twice/week on production days. If wants to monitor on non-production days must monitor for six consecutive days following sampled non-production day for inclusion in calculation of monthly average. Permit may be modified to incorporate weighted average method if after one year, effluent limits and receiving water quality parameters are met. (REVIEW DATA AFTER ONE YEAR: January 1994, after DMR report and receiving WQ monitoring reports received for October.)

Discharge Specifications

Within ZID shall not reveal:

Chlorophyll a > 1.0 ug/l;
Light penetration depth < 65 ft;;
Objectional color, odor, taste;
Floating material;
Materials which produce turbidity or settle to form objectionable objects.

Within ZOM shall not reveal:

DO < 5.0 mg/l or 70% saturation;
Turbidity > 0.75 n. turbidity;
Toxicity to aquatic life.

Outside ZOM shall not reveal:

Temp. > 1.5 degrees F from
Total Nitrogen > 200 ug/l;
Total Phosphorus > 30 ug/l.

Toxicity

Effluent Biomonitoring (By Jan. 25, thereafter. Report on DMRs)

Within 90 days of effective date of annual bioassays, composite sample, once for canneries to combine effluents for bioassays. If results indicate toxicity, test must be done on effluents, within 30 days of results. To be done separately on each cannery's effluent. (See letter to Jim Cox of 10/21/92.)

Send only
Studies to
Permits -
not DMRs.
(As per Inspector Lee)
8/94

Star-Kist Samoa, Inc.
NPDES Permit No. AS000019

Date Issued: September 24, 1992
Effective Date: October 27, 1992
Expiration Date: October 26, 1997

Effluent Limits (see attached)

BOD Monitoring only. No limits.

TP & TN

Sample twice/week on production days. If wants to monitor on non-production days must monitor for six consecutive days following sampled non-production day for inclusion in calculation of monthly average. Permit may be modified to incorporate weighted average method if after one year, effluent limits and receiving water quality parameters are met. (REVIEW DATA AFTER ONE YEAR: January 1994, after DMR report and receiving WQ monitoring reports received for October.)

Discharge Specifications

Within ZID shall not reveal:

Chlorophyll a > 1.0 ug/l;
Light penetration depth < 65 ft,;
Objectional color, odor, taste;
Floating material;
Materials which produce turbidity or settle to form objectionable objects.

Within ZOM shall not reveal:

DO < 5.0 mg/l or 70% saturation;
Turbidity > 0.75 n. turbidity units;
Toxicity to aquatic life.

Outside ZOM shall not reveal:

Temp. > 1.5 degrees F from normal;
Total Nitrogen > 200 ug/l;
Total Phosphorus > 30 ug/l.

Toxicity

Effluent Biomonitoring (By Jan. 25, 1993; every six months thereafter. Report on DMRs)

Within 90 days of effective date of permit, conduct semi-annual bioassays, composite sample, once every six months. Ok for canneries to combine effluents for bioassay test; however if results indicate toxicity, test must be done using separate effluents, within 30 days of results. Priority pollutant scans to be done separately on each cannery's effluent. (As per fax to Jim Cox of 10/21/92.)

Priority Pollutant Scan (By Feb. 27 1993, submit report; yearly thereafter.

Within 4 months of effective date of permit, conduct priority pollutant scan of effluent, concurrent with bioassays.

Receiving Water Quality Monitoring Program (Submit quarterly)

Conducted by ASEPA for canneries, near ZID, ZOM and outside of ZOM, for water quality impacts. Measurements of 11 parameters at 3 depths at each station (18 stations)

Dye or Tracer Studies (Submit plan within 1 week of effective date--Submitted on 10/29/92. Perform two in one year, results submitted 30 days after conducting.)

Study and date of first study to be approved by USEPA/ASEPA. Study to occur by February 1993 (4 months after effective date of permits (EDP)).

Sediment Monitoring

1/23/93: Submit plan w/in 3 months of EDP
Sites to be approved annually; study conducted yearly.
Report submitted w/in 90 days of sampling.
Review plan after two years for more/less monitoring.

Eutrophication Study (one time only)

4/27/93: Submit proposed study design (6 months after EDP)
10/27/93: Complete/Submit report.

Coral Reef Survey

4/27/93: Submit plan (6 months after EDP)
10/27/93: Conduct study.
Conduct study every 2 years thereafter (1995 and 1997)

Verification of Modeling Predictions

12/27/93: Submit plan (3 months after both dye studies)
Conduct study using 1 year's receiving water data, and yearly thereafter. (By April of each year?)

Wastewater Treatment System Evaluation

10/27/93: Submit report.
12/27/93: Submit schedule for improvements.
10/27/94, 95, 96, 97: Submit progress reports.
10/28/97: Submit WWTS evaluation report by end of permit.

If study conducted w/in past two years:

12/27/92: Submit schedule of implementation.
Submit annual progress reports, etc. (same as above)

Pollution Prevention Program

4/27/93: Develop and implement program. Submit plan. To include methods to reduce heavy metal levels (for ASEPA-/USEPA approval).

April, annually: Submit annual reports documenting progress.

A. EFFLUENT LIMITS AND MONITORING REQUIREMENTS

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall 001.

The effluent shall be sampled prior to its comingling with effluent from the other can^{ky}.

Such discharges shall be limited and monitored by the permittee as specified below:⁽¹⁾

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|-----------------------------------|-----------------------|------------|-------------------------|---------------------|
| | 30-DAY AVG. | DAILY MAX. | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW (MGD) | -- | 2.9 | CONTINUOUS | RECORDER |
| BIOCHEMICAL OXYGEN DEMAND (5-DAY) | (6)(5) | (6)(5) | TWICE/MONTH | COMPOSITE |
| SUSPENDED SOLIDS (lbs/day) | 2653 | 6673 | TWICE/WEEK | COMPOSITE |
| OIL AND GREASE (lbs/day) | 675 | 1688 | TWICE/WEEK | GRAB ⁽²⁾ |
| TOTAL PHOSPHORUS (lbs/day) | 192 | 309 | (3) | COMPOSITE |
| TOTAL NITROGEN (lbs/day) | 1200 | 2100 | (3) | COMPOSITE |
| ACUTE TOXICITY | -- | (4) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL AMMONIA (mg/l) | -- | 133 | ONCE/WEEK | COMPOSITE |
| TEMPERATURE (°F) | 90 | 95 | CONTINUOUS | CONTINUOUS |
| TOTAL CADMIUM (mg/l) | (5) | (5) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL CHROMIUM (mg/l) | " | " | " | " |
| TOTAL LEAD (mg/l) | " | " | " | " |
| TOTAL MERCURY (mg/l) | " | " | " | " |
| TOTAL ZINC (mg/l) | " | " | " | " |
| pH | -- | (6) | CONTINUOUS | CONTINUOUS |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105

NOV 08 1995

Norman Wei
Corporate Environmental Manager
StarKist Foods, Inc.
1054 Ways Street
Terminal Island, CA 90731

James L. Cox
Director of Engineering
and Environmental Affairs
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, CA 92121-3029

Subject: Modification of Receiving Water Quality Monitoring
Requirements of NPDES Permit AS0000019 for StarKist
Samoa, Inc. and NPDES Permit AS0000027 for VCS Samoa
Packing Company

Dear Mr. Wei and Mr. Cox:

The U.S. Environmental Protection Agency..(EPA) Region IX is modifying the receiving water quality monitoring program for the above-referenced National Pollutant Discharge Elimination System (NPDES) Permits AS0000019 and AS0000027, as per 40 CFR 122, effective November 10, 1995. Based on review of the water quality data collected under this permit, it appears that the American Samoa water quality standards for constituents monitored under the NPDES permits for the canneries are generally being met throughout Pago Pago Harbor, except in the inner harbor and occasionally in the zone of mixing for the joint cannery outfall. It is surmised that the inner harbor exceedances may not be attributable to the canneries' discharge and the revised monitoring program will provide data to better define the causes for any noncompliance with water quality standards.

This modification to the receiving water quality monitoring program is considered a minor modification as the overall monitoring effort required is not being reduced. The purpose of the original monthly monitoring program was to assess the short-term effects of the canneries' discharge at the new outfall location. Over the past three years, sufficient data has been collected and reviewed for this purpose. The monitoring program is now being revised to assess the long-term effects of the discharge to the harbor. Changes are being made in monitoring frequency (from monthly to semi-annually to cover both oceanographic seasons), and in sampling types (from grab to continuous vertical profiles) for some parameters. Three new sampling stations are being re-



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105

NOV 08 1995

Norman Wei
Corporate Environmental Manager
StarKist Foods, Inc.
1054 Ways Street
Terminal Island, CA 90731

James L. Cox
Director of Engineering
and Environmental Affairs
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, CA 92121-3029

Subject: Modification of Receiving Water Quality Monitoring
Requirements of NPDES Permit AS0000019 for StarKist
Samoa, Inc. and NPDES Permit AS0000027 for VCS Samoa
Packing Company

Dear Mr. Wei and Mr. Cox:

The U.S. Environmental Protection Agency (EPA) Region IX is modifying the receiving water quality monitoring program for the above-referenced National Pollutant Discharge Elimination System (NPDES) Permits AS0000019 and AS0000027, as per 40 CFR 122, effective November 10, 1995. Based on review of the water quality data collected under this permit, it appears that the American Samoa water quality standards for constituents monitored under the NPDES permits for the canneries are generally being met throughout Pago Pago Harbor, except in the inner harbor and occasionally in the zone of mixing for the joint cannery outfall. It is surmised that the inner harbor exceedances may not be attributable to the canneries' discharge and the revised monitoring program will provide data to better define the causes for any noncompliance with water quality standards.

Mod. to
WQ
Program

This modification to the receiving water quality monitoring program is considered a minor modification as the overall monitoring effort required is not being reduced. The purpose of the annual monthly monitoring program was to assess the short-term effects of the canneries' discharge at the new outfall location. Over the past three years, sufficient data has been collected and analyzed for this purpose. The monitoring program is now being modified to assess the long-term effects of the discharge to the harbor. Changes are being made in monitoring frequency (from monthly to semi-annually to cover both oceanographic seasons), sampling types (from grab to continuous vertical profiles) and for some parameters. Three new sampling stations are being re-

quired as well as monitoring for two additional parameters (zinc and copper) at certain stations.

Additional sampling for zinc and copper is being required to establish ambient background levels in the harbor which will be used to determine the applicability of establishing mixing zones for these constituents. Elevated zinc and copper effluent levels have been noted and significant reductions in source loadings would be very difficult, for reasons cited in the "Metals Source Identification Study for Samoa Packing", dated June 15, 1995.

The changes to the receiving water monitoring program are detailed in the attached pages. (Shaded text indicates additions to the permit. Lined out items are deletions.) These replace the corresponding pages in the permit and are hereby incorporated into and made a part of both Permits AS0000019 and AS0000027. In summary, the changes are as follows:

1. The frequency of sampling is reduced from monthly to semi-annually (corresponding with other sampling events required by the permit: effluent priority pollutant, toxicity and sediment monitoring);
2. The number of sampling stations is increased by three, from 17 to 20, and will be located as follows: on the western side of the middle harbor (American Samoa Power Authority Station B), outer harbor (new Station 6A), and transition zone (new Station 5A).
3. Continuous vertical profiles will be performed, rather than discrete samples, for temperature, salinity (conductivity), dissolved oxygen, pH, and turbidity.
4. Six, rather than three samples will be taken per station where possible, for nutrients and chlorophyll-a. Three samples will be taken at depths currently specified (near surface, 60 feet and near bottom), and three additional samples will be taken at 30, 90 and 120 feet. A minimum of three samples will be taken at each station (near surface, mid-depth and near bottom).
5. Suspended solids is removed from the suite of constituents to be analyzed.
6. Sampling for zinc and copper will be required and conducted at the same frequency as for the revised water quality monitoring program (approximately every six months). Sampling locations will be at the boundary of the existing mixing zone established for total nitrogen and total phosphorus, in the transition zone and in the inner harbor. Stations and depths to be sampled are as follows:

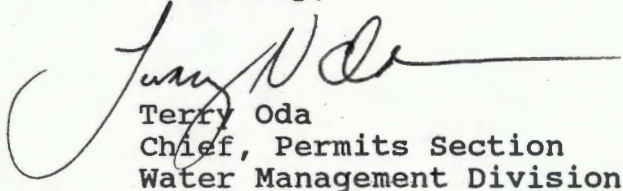
| Stations | Depths |
|-------------------|------------------------------|
| 15, 16, 18, 5, 5A | 30 ft., 120 ft., near bottom |
| 11, 13 | near surface, near bottom |

The number of stations and samples may be adjusted based on the results of the first sampling episode.

7. A standard operating procedure and study plan for the revised water quality monitoring program will be developed and submitted within 30 days of the effective date of this revision for approval.

A copy of this letter and the revised pages of the permit should be attached to the current NPDES permit and kept at the respective facility's file for compliance purposes. Should you have any questions regarding this action, please call Pat Young, American Samoa Program Manager at (415) 744-1594 or Doug Liden of my staff at (415) 744-1920.

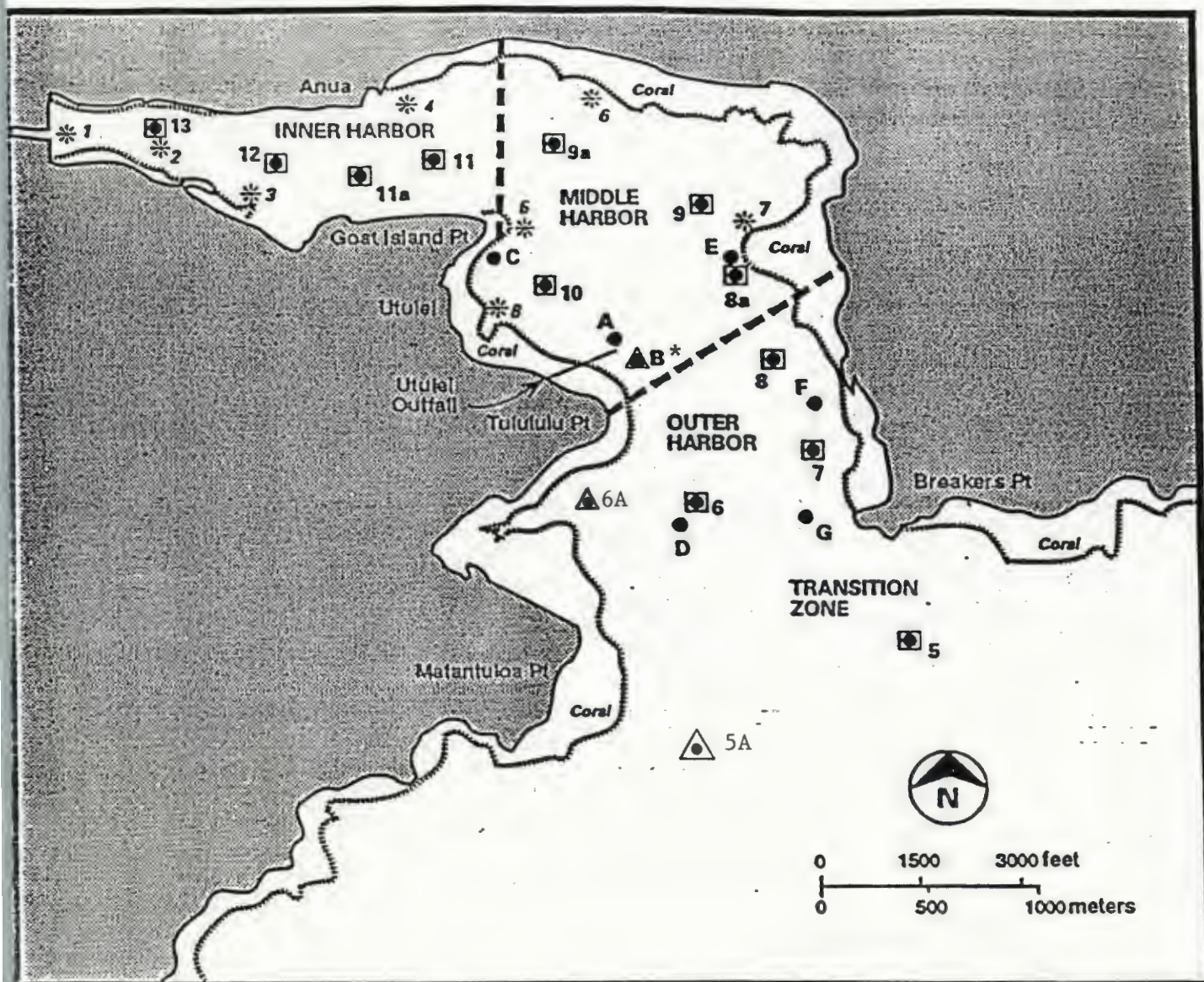
Sincerely,






Terry Oda
Chief, Permits Section
Water Management Division


Enclosures

cc: Steve Costa, CH2M HILL
Togipa Tausaga/Sheila Wiegman, ASEPA
Barry Mills, StarKist Samoa, Inc.
William D. Perez, VCS Samoa Packing Company



LEGEND

-  ASG Sampling Station
-  Utulei WWTP Station
-  CH2M HILL Field Measurement Station (1/19/91)

-  New sampling station as per permit modifications, effective 11/10/95.
- * ASPA Station B will be utilized and referred to as Station 10A.

REVISED **FIGURE 2. LOCATION OF WATER QUALITY STATIONS IN PAGO PAGO HARBOR**

Monitoring stations shall be designated and located as shown (also see Figures 1 and 2-revised):

| Offshore Station | Vicinity | Location | Latitude | | Coordinates | Longitude | |
|------------------|-----------------|--------------|----------|-----------|-------------|-----------|--------------|
| | | | West | Longitude | | South | Latitude |
| 5 | Transition Zone | | 170° 39' | 44.282° | -72W | 14° 17' | 53.468° -88S |
| 5A | Transition Zone | West | 170° 40' | 13.000° | | 14° 18' | 29.000° |
| 6 | Outer harbor | Central | 170° 40' | 41.372° | -20W | 14° 17' | 31.322° -52S |
| 6A | Outer harbor | West | 170° 40' | 18.500° | | 14° 17' | 31.000° |
| 7 | Outer harbor | East, S. | 170° 39' | 56.256° | -93W | 14° 17' | 22.339° -37S |
| 8 | Outer harbor | East | 170° 39' | 53.960° | 401.07W | 14° 17' | 10.830° -17S |
| 8a | Middle harbor | East | 170° 40' | 5.529° | -13W | 14° 16' | 51.575° -88S |
| 9 | Middle harbor | East | 170° 40' | 9.006° | -18W | 14° 16' | 39.861° -66S |
| 9a | Middle harbor | East | 170° 40' | 34.862° | -57W | 14° 16' | 34.905° -58S |
| 10 | Middle harbor | West | 170° 40' | 39.508° | -75W | 14° 16' | 55.258° -87S |
| 10A | Middle harbor | West | 170° 40' | 20.000° | | 14° 17' | 10.000° |
| 11 | Inner harbor | Center, E. | 170° 40' | 54.092° | -90W | 14° 16' | 34.295° -58S |
| 11a | Inner harbor | Center, E. | 170° 41' | 6.540° | -13W | 14° 16' | 38.573° -62S |
| 12 | Inner harbor | Center | 170° 41' | 20.769° | -33W | 14° 16' | 36.564° -60S |
| 13 | Inner harbor | Center, W. | 170° 41' | 42.849° | -71W | 14° 16' | 30.008° -50S |
| 14 | Middle harbor | Diffuser | 170° 40' | 1.678° | -03W | 14° 16' | 58.934° -58S |
| 15 | Middle harbor | ZOM Edge, N. | 170° 40' | 6.243° | -12W | 14° 16' | 45.632° -77S |
| 16 | Middle harbor | ZOM Edge, W. | 170° 40' | 13.483° | -17W | 14° 16' | 57.273° -56S |
| 17 | Middle harbor | ZOM Edge, E. | 170° 40' | 1.158° | 391.91W | 14° 16' | 54.398° -90S |
| 18 | Outer harbor | ZOM Edge, S. | 170° 39' | 59.177° | 401.08W | 14° 17' | 8.862° -10S |

Note: Revised coordinates listed are locations of stations used and reported in CH2M Hill's July 7, 1995 Report, "Results of March 1995 Harbor Water Quality Monitoring Pago Pago Harbor, American Samoa", and are as read from GPS in field. (A correction factor based on readings at known locations may be required for exact station location.) Latitudes for Stations 14 and 16 originally listed in the permit were incorrect and are corrected here.

It is recommended that the stations be located using the sextant angle resection positioning method or a positioning system which affords an equivalent degree of accuracy and precision. Other means may be used if, in the judgment of ASEPA and EPA Region 9, they are of sufficient accuracy and precision to allow reoccupation of the stations within plus or minus six (6) meters.

Revised effective November 10, 1995

The following shall constitute the Water Quality Monitoring Program as shown:

| Parameter | Units | Stations | Sample Type | Sample Frequency |
|-----------------------------|---------------------|--------------|--------------------------------|------------------------------------|
| Temperature | °F | all | grab continuous (1) | monthly semi-annual (2) |
| pH | " | " | " continuous (1) | " semi-annual (2) |
| Dissolved Oxygen | mg/l | " | " continuous (1) | " semi-annual (2) |
| Suspended Solids | mg/l | " | " | " |
| Light Penetration | ft. | " | grab | " semi-annual (2) |
| Turbidity | NTU | " | " continuous (1) | " semi-annual (2) |
| Salinity | ppt | " | " continuous (1) | " semi-annual (2) |
| Chlorophyll a (3) | µg/l | " | grab | " semi-annual (2) |
| Total Nitrogen (3) | µg/l | " | " | " semi-annual (2) |
| Total Phosphorus (3) | µg/l | " | " | " semi-annual (2) |
| Total Ammonia (3) | µg/l | " | " | " semi-annual (2) |
| Zinc | µg/l (4) | " | " | semi-annual (2) |
| Copper | µg/l (4) | " | " | semi-annual (2) |

(1) Continuous vertical profiles.

(2) Sampling to occur approximately every 6 months to coincide with the two main oceanographic seasons.

(3) Samples to be taken at the following depths where possible: near surface, 30, 60, 90 and 120 feet, and near bottom. Where water depth is less than 120 feet, a minimum of three samples shall be taken at each station (near surface, mid-depth and near bottom).

(4) The following stations shall be sampled at the noted depths:
Stations 5, 5A, 15, 16 18: 30 feet, 120 feet, near bottom;
Stations 11 and 13: near surface and near bottom.
The number of stations and samples may be adjusted based on the results of the first sampling episode, upon approval by USEPA and ASEPA.

~~Measurements should be taken at three depths for each location: 1 meter above the bottom, 1 meter below the surface, and at mid-depth.~~

A study plan which includes standard operating procedures for receiving water quality measurements will be developed and submitted to ASEPA and USEPA for approval within 30 days of the effective date of this revision.

File Copy

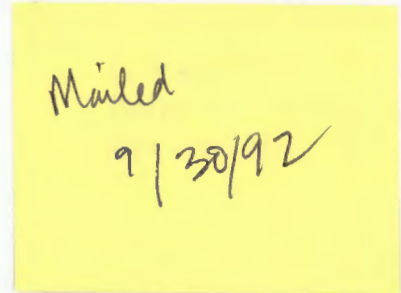


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, Ca. 94105-3901

24 SEP 1992



Maurice Callaghan
Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago, Tutuila
American Samoa 96799

Dear Mr. Callaghan:

Enclosed is a copy of a National Pollutant Discharge Elimination System (NPDES) permit for the following discharger:

Star-Kist Samoa, Inc.
NPDES Permit No. AS0000019

The staff at the Environmental Protection Agency (EPA) has reviewed the NPDES permit application for these facility and has prepared draft permits, in accordance with the Clean Water Act. The EPA has also published public notices of its tentative decisions to issue permits to the above dischargers. After considering the expressed views of all interested persons and certification of the draft permits, the EPA, pursuant to 40 CFR 124, has prepared final permits which do not differ significantly from the draft permits.

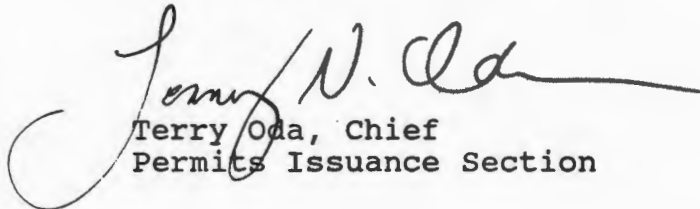
During the public comment period, several comments were submitted to EPA on the proposed draft permits. Enclosed is EPA's response to these comments. Please see the enclosed statement "Response to Comments."

The NPDES permits are hereby issued upon the date of signature and shall become effective 33 days from the date of this cover letter, unless there is written request for an evidentiary hearing. Pursuant to 40 CFR 124.76, requests for an evidentiary hearing must state each of the legal or factual question alleged to be at issue and must demonstrate one of the following for each issue being raised in the hearing request: that the issue was raised during the public comment period; that the issue was not reasonably ascertainable during the public comment period; or the requester could not have reasonably anticipated the relevance or materiality of the issue during the comment period. Any request for an evidentiary hearing must be submitted within 33 days from the date of this cover letter to Steven Armsey, Regional Hearing Clerk (RC-1), at the above address.

The EPA will routinely deny any evidentiary hearing request which is postmarked later than the 33rd day from the date of this cover letter. Also, the EPA will routinely deny any evidentiary hearing request which raises only legal issues. Any denial of a request for an evidentiary hearing may be appealed to the Administrator within 30 days from the date of notice of the denial. The requestor must exhaust all administrative review before seeking judicial review.

If you have any questions regarding the procedures outlined above, please call Doug Liden at (415) 744-1921 or Pat Young at (415) 744-1591.

Sincerely,



Terry Oda, Chief
Permits Issuance Section

Enclosure

CC:

Pati Faiai, ASEPA

Norman Lovelace, USEPA

Henry Seseapasara, Dep. of Marine and Wildlife Resources

Norman Wei, Star-Kist, Inc.

Jim Cox, VCS Samoa Packing Co.

Steve Costa, CH2MHill

Response to Comments

VCS Samoa Packing Company
NPDES Permit No. AS0000027

Star Kist Samoa, Inc.
NPDES Permit No. AS0000019

Comments on the draft permits for these facilities were received from the dischargers through their consultant, CH2MHill, on April 22, 1992. These comments pertained to both permits and will be addressed together. One comment was also received from Department of Marine and Wildlife Resources. The response to that comment is found under Section F.

Section A. Effluent Limits and Monitoring Requirements

1. Monitoring for Total Nitrogen (TN) and Total Phosphorus (TP)

The canneries' comments related to the monitoring schedule in the draft permit for monthly averages for TN and TP which provided the option of counting non-production day discharges by requiring seven consecutive days of monitoring (six days following the monitoring of a non-production day). It was suggested that this approach was overly conservative, expensive, and that a weighted average procedure be used in calculating production and non-production day loadings for monthly averages.

Response: The method proposed in the draft permit for monitoring and calculating monthly averages for TN and TP is straight-forward (i.e. all sampling days are totaled and averaged and does not use weighted averages) and yet still allows the canneries to account for non-production days in order to lower their monthly average if necessary. Thus, the monitoring requirement will stand as is.

Should the canneries consistently comply with their TN and TP limits and should the monitoring data show that the discharge is not significantly affecting the water quality in the harbor or causing receiving water quality violations, the permit may be modified to incorporate a "weighted average" method of measuring compliance with the limitations. The numerical limitations themselves shall not be made any less stringent.

2. Monitoring Requirements for Total Residual Chlorine (TRC)

The canneries commented that the TRC limit did not account for quenching effects on TRC as it travels through the outfall. They requested that procedures be developed to test these effects and the results used to determine if a

compliance problem with TRC standards in the receiving waters exists. Additionally, guidance was requested from USEPA on acceptable analytical procedures and instrumentation for measuring such low levels of TRC.

Response: The USEPA's Environmental Support Branch (ESB) was consulted and based on their recommendation, the TRC monitoring requirement has been removed from the permit. In ESB's opinion, the quenching effect and high organic content of the effluent, as well as the salinity of the effluent and receiving waters, would likely result in a negligible amount of TRC discharged into the harbor. This permit may be reopened for the inclusion of such a monitoring requirement and a limitation should an approved EPA method be developed and conditions indicate that TRC is present in the effluent.

3. Monitoring Requirements for pH

As requested, the condition regarding monitoring requirements for pH which was included in the previous permits will be retained in the present permits.

4. Total Nitrogen (TN) and Total Phosphorus (TP) Combined Loading

The canneries requested that total allowable loading for TN and TP in the mixing zone be used as the criterion for determining violations of permit conditions for these parameters. Under such an arrangement there would be no violation unless the total loading for both canneries was exceeded.

Response. Although the canneries share a joint outfall and zone of mixing, each cannery is being issued its own NPDES permit, and thus is responsible for meeting the limitations described in its individual permit. For enforcement purposes, each permit must stand as an independent and enforceable contract. The "bubble approach", was employed in these permits by allowing the canneries to effectively determine their own limitations by allocating the total end-of-pipe limitations for nutrients.

Section B. Discharge Specifications

The canneries expressed concern that the receiving water monitoring discharge "shall not reveal" specifications for certain parameters was vague, and that the permits implied that the canneries would be held responsible for violations of water quality if the monitoring revealed any of the listed items, without consideration of other pollutant sources such as nonpoint sources, stream runoff, etc.

Response. While we agree that the canneries should not be held responsible for ambient excursions above water quality standards that are in no way linked to the canneries' discharge, the canneries are responsible for providing proof that their discharges are not responsible for such excursions. Such clarifying language has been added to the permit.

Section C. Protected and Prohibited Uses

The canneries felt that the permit language should specify that this section applied to their discharge as they should not be held responsible for other parties engaging in prohibited uses or compromising the protected uses of the harbor.

Response. The canneries are not held responsible for another party engaging in prohibited uses. Such language clarifying the canneries' responsibilities has been added.

Section D. Toxicity

The canneries requested that the language of the first sentence of Part 3 (Toxicity Reopener) be modified to add the word "materially", so that it would read, "Should any of the monitoring indicate that the discharge causes, has reasonable potential to cause, or contributes **materially** to an excursion above a water quality criteria,...."

Response. The language in the proposed permit is a direct implementation of American Samoa's water quality standards. The language shall remain as stated.

Section E. Receiving Water Quality Monitoring Program

The canneries requested that the permit include the possibility of modification/elimination of monitoring stations, with appropriate review, after the first year of monitoring. They felt that if the first year of monitoring indicated that water quality standards were being met throughout the harbor, then only those stations in and at the edge of the mixing zone would be needed to monitor compliance.

Response. The number and location of stations is important to assess the cause of a water quality exceedance and to assess farfield dilution. Therefore, a greater number of stations is beneficial both to the regulators and to the canneries. The number and location of sampling stations shall remain as stated.

Section F. Dye or Tracer Studies

The canneries suggested that the dates for these studies be determined during development of the study plans so that the studies would be conducted at the appropriate time, during the two distinct oceanographic seasons. They also suggested that the second study requirement be contingent upon an assessment of the first study's results.

Response. We agree with the rationale behind determining the date of the dye study during the development of the study plan. However, the date must be approved by ASEPA and USEPA and is to occur no later than six months after the issuance of this permit.

A second study shall be required regardless of the results of the first study. The purpose of these studies is to evaluate the two extreme conditions (i.e. no current and a current towards the coral reef.) One study would not be enough to ascertain two such conditions.

Department of Marine and Wildlife Resources recommended that the "new" water quality sampling stations be determined after the results of dye/tracer studies are obtained because "the results may show differential plume dispersal which would be useful in sample site selection."

Response: The purpose of the new sites are to determine compliance with the water quality standards at the applicable locations (either within or at the boundary of the mixing zone). The "new" sites are therefore established at those locations. The permit does include a reopener clause for the inclusion of additional monitoring stations should the results of any of the studies or monitoring program warrant it.

Section G. Sediment Monitoring

The canneries felt that yearly sediment sample studies may not be necessary and suggested that the results of the first two years of monitoring be assessed and the necessity of annual sampling be determined at that time.

Response. We agree with this suggestion and the permit language has been revised accordingly.

Section H. Eutrophication Study

As per the canneries' comment, the phrase "phytoplankton species" has been clarified to "phytoplankton communities".

Section I. Coral Reef Survey

The canneries suggested less frequent coral reef surveys be undertaken in order to detect meaningful differences and that a revised study plan should be made after the first survey, which would specify the timing of the subsequent surveys.

Response. The intent of this requirement was to provide baseline data and two subsequent surveys for comparison over the period of the permits (5 years). Thus, the first survey should be done as stated (within the first year of permit issuance) and the next study should be performed within two years of the first study and biannually thereafter.

Section J. Verification of Model Predictions

The canneries' suggestion requiring a study plan be approved to verify model predictions will be incorporated in the permit. This will ensure coordination between all parties and that all needs are met meaningfully.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

75 Hawthorne Street
San Francisco, CA 94105

Norman Wei
Corporate Environmental Manager
StarKist Foods, Inc.
1054 Ways Street
Terminal Island, CA 90731

James L. Cox
Director of Engineering
and Environmental Affairs
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, CA 92121-3029

Subject: Modification of Receiving Water Quality Monitoring
Requirements of NPDES Permit AS0000019 for StarKist
Samoa, Inc. and NPDES Permit AS0000027 for VCS Samoa
Packing Company

Dear Mr. Wei and Mr. Cox:

The U.S. Environmental Protection Agency (EPA) Region IX is modifying the receiving water quality monitoring program for the above-referenced National Discharge Elimination System (NPDES) Permits AS0000019 and AS0000027, as per 40 CFR 122, effective November 10, 1995. Based on review of the water quality data collected under this permit, it appears that the American Samoa water quality standards for constituents monitored under the NPDES permits for the canneries are generally being met throughout Pago Pago Harbor, except in the inner harbor and occasionally in the zone of mixing for the joint cannery outfall. It is surmised that the inner harbor exceedances may not be attributable to the canneries' discharge and the revised monitoring program will provide data to better define the causes for any noncompliance with water quality standards.

This modification to the receiving water quality monitoring program is considered a minor modification as the overall monitoring effort required is not being reduced. The purpose of the original monthly monitoring program was to assess the short-term effects of the canneries' discharge at the new outfall location. Over the past three years, sufficient data has been collected and reviewed for this purpose. The monitoring program is now being revised to assess the long-term effects of the discharge to the harbor. Changes are being made in monitoring frequency (from monthly to semi-annually to cover both oceanographic seasons), and in sampling types (from grab to continuous vertical profiles) for some parameters. Three new sampling stations are being re-

| | | | | | | |
|-----------|---------|---------|----------|---------|---------|--|
| MAIL CODE | E-4 | E-4 | Lovehace | W-5-1 | W-5-1 | |
| SURNAME | pyoung | M. Lee | L. Lee | L. Lee | Q. Lee | |
| DATE | 11/7/95 | 11/7/95 | 11/7/95 | 11/7/95 | 11/7/95 | |

U.S. EPA CONFIDENTIAL

OFFICIAL FILE COPY

CH2M HILL
1111 BROADWAY
OAKLAND, CA 94607
510-251-2888 (x2251)
(VOICE MAIL)

FAX No. 707-822-0567

FAX Cover Sheet

INFORMATION TO:

Name: PAT YOUNG

Company: USEPA

Office No.: 415-744-1594

Fax No.: 415-744-1604

Name: _____

Company: _____

Office No.: _____

FAX No.: _____

INFORMATION FROM:

Name: STEVE COSTA

Company: CH2M HILL/SFO

Subject: NEW PAGO PAGO HARBOR

STATION LOCATIONS FOR

AMERICAN SAMOA NPDES
WATER QUALITY STUDIES

Date: 11/6/95

TOTAL NO. OF PAGES TRANSMITTED INCLUDING COVER SHEET 3

IF YOU DO NOT RECEIVE ALL OF THE PAGES, PLEASE CALL 707-826-0717 or 7662

REMARKS: ATTACHED ARE THE LOCATIONS FOR THE THREE

NEW STATIONS BEING PROPOSED FOR ADDITION TO THE

AMERICAN SAMOA CANNERY NPDES WATER QUALITY STUDIES.

PLEASE CALL IF YOU HAVE ANY QUESTIONS

| Table 1. NEW STATION LOCATIONS PROPOSED FOR AMERICAN SAMOA WATER QUALITY NPDES STUDIES | | |
|--|-----------------|------------------|
| STATION | SOUTH LATITUDE | WEST LONGITUDE |
| B (10A) | 14° 17.17' | 170° 40.33' |
| Middle Harbor Station Used by ASEPA, West Side of Harbor | 14° 17' 10.000" | 170° 40' 20.000" |
| 6A | 14° 17.52' | 170° 40.31' |
| New Outer Harbor Station West of Existing Station 6 | 14° 17' 31.000" | 170° 40' 18.500" |
| 5A | 14° 18.48' | 170° 40.22' |
| New Transition Station West of Existing Station 5 | 14° 18' 29.000" | 170° 40' 13.000" |

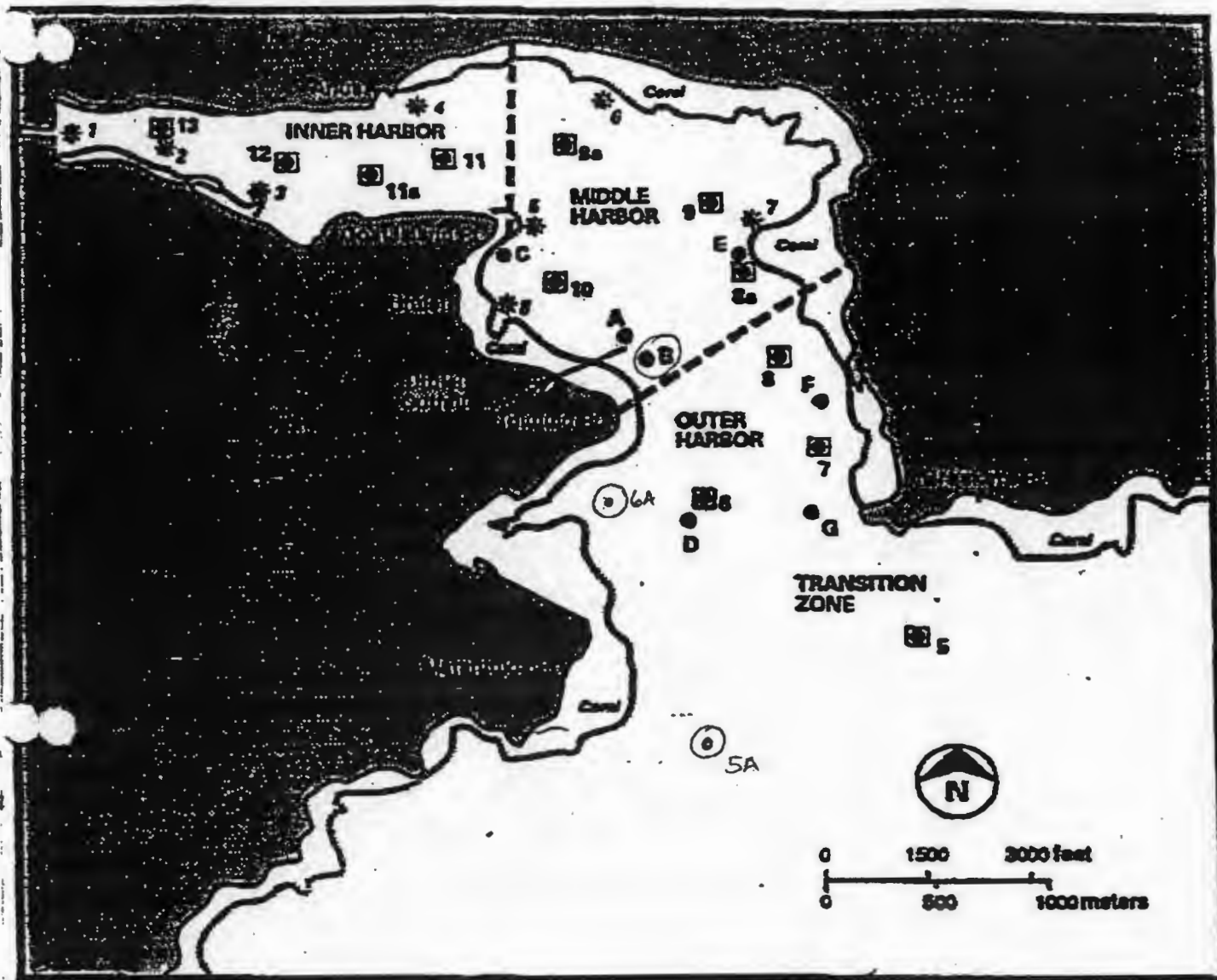
Pat,

Can we call Station "B" as "10A" so as not to confuse it with the ASEPA 's station.

The above table should clarify the proposed station locations, sorry for the confusion.

Steve

| | | | | | |
|-------------------|--------------|---------|--------------|------------|---|
| Post-it* Fax Note | 7671 | Date | 11-7-95 | # of pages | 1 |
| To | PAT YOUNG | From | STEVE COSTA | | |
| Co./Dept. | USEPA | Co. | CH2M HILL | | |
| Phone # | 415-744-1596 | Phone # | 707-826-0717 | | |
| Fax # | 415-744-1604 | Fax # | 707-822-0567 | | |



LEGEND

- ASG Sampling Station
- Utulei WWTP Station
- * CH2M HILL Field Measurement Station (1/19/91)
- Proposed New Stations

FIGURE 2 LOCATION OF WATER QUALITY STATIONS IN PAGO PAGO HARBOR

ROUTING AND TRANSMITTAL SLIP

Date 9/22/92

| TO: (Name, office symbol, room number, building, Agency/Post) | | Initials | Date |
|---|--------------|-----------|-------------|
| 1. LEE PAT <i>Young</i> | <i>Young</i> | <i>ML</i> | |
| 2. <i>TERRY ODA</i> For Sig | | <i>JP</i> | <i>9/23</i> |
| 3. <i>BILL PIERCE</i> | | <i>WP</i> | <i>9/25</i> |
| 4. <i>HARRY SERAFINIA</i> FOR SIG | | | |
| 5. <i>CECILIA LAUDE</i> FOR MAILING | | | |

| | | |
|--------------|----------------------|------------------|
| Action | File | Note and Return |
| Approval | For Clearance | Per Conversation |
| As Requested | For Correction | Prepare Reply |
| Circulate | For Your Information | See Me |
| Comment | Investigate | Signature |
| Coordination | Justify | |

REMARKS

CANNERY PERMITS - STAR-KIST
LEGITIMATE SURE THEY ARE DATED
BEFORE SENDING. (1ST PAGE OF PERMIT)

Harry - These are excellent permits - significant issues are addressed nutrient loads, O&M of treatment plant, poll prev. Toxicity test report which is reasonable to expect, so permit requires monitoring only.

RECORD of approvals, concurrences, disposals, es, and similar actions

| | |
|----------|--------------------------------|
| cy/Post) | Room No.—Bldg. <i>W-5-1</i> |
| | Phone No. <i>1921</i> |

OPTIONAL FORM 41 (Rev. 7-76)
 Prescribed by GSA
 FPMR (41 CFR) 101-11.206

Bett -
 Here they are. 2 excellent and comprehensive Cannery permits. Covers effluents and extensive water quality monitoring and studies; pollution prevention, BMAP's, etc.

MO 9/23

StarKist Seafood Company**Memorandum**

| | | |
|--|----------------------|----------------|
| Post-It™ brand fax transmittal memo 7671 | | # of pages ▶ 2 |
| To <i>Pat Young</i> | From <i>Norm Wei</i> | |
| Co. | Co. | |
| Dept. | Phone # | |
| Fax # | Fax # | |

Copy to Doug/Mike

DATE: 12 October, 1992

TO: Pat Young, US EPA Region 9
Program Manager for American Samoa

FROM: Norman Wei *[Signature]*

SUBJECT: New NPDES Permit for StarKist Samoa, Inc.

I wish to thank your agency for its considerations in working with me and Steve Costa in developing this new permit. I believe it is a stringent and yet reasonable discharge permit.

In reviewing the new NPDES permit that was issued by US EPA to StarKist Samoa, Inc., I noticed the following typographical errors on page 2 "Effluent Limits and Monitoring Requirements".

1. The Notes for Biochemical Oxygen Demand (5-day) should be (5) instead of (6) as indicated. Note (5) refers to "No limit set at this time. Monitoring and reporting only" whereas Note (6) refers exclusively to the daily maximum limit for pH.
2. The word "Oxygen" in Biochemical Oxygen Demand was misspelled.
3. The second sentence paragraph on page 2 states that "the effluent shall be sampled prior to its comingling with effluent from the other can." The word "can" should be written as "cannery". The word "comingling" should be correctly spelled as "commingling".

You might wish to make the same corrections for Samoa Packing's permit as well.

A. EFFLUENT LIMITS AND MONITORING REQUIREMENTS

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall 001.

The effluent shall be sampled prior to its comingling with effluent from the other can^{very}

Such discharges shall be limited and monitored by the permittee as specified below:⁽¹⁾

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|--|-----------------------|--------------------|-------------------------|---------------------|
| | 30-DAY AVG. | DAILY MAX. | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW (MGD) | -- | 2.9 | CONTINUOUS | RECORDER |
| BIOCHEMICAL ^{OXYGEN} DEMAND (5-DAY) | 167 (5) | 167 (5) | TWICE/MONTH | COMPOSITE |
| SUSPENDED SOLIDS (lbs/day) | 2653 | 6673 | TWICE/WEEK | COMPOSITE |
| OIL AND GREASE (lbs/day) | 675 | 1688 | TWICE/WEEK | GRAB ⁽²⁾ |
| TOTAL PHOSPHORUS (lbs/day) | 192 | 309 | (3) | COMPOSITE |
| TOTAL NITROGEN (lbs/day) | 1200 | 2100 | (3) | COMPOSITE |
| ACUTE TOXICITY | -- | (4) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL AMMONIA (mg/l) | -- | 133 | ONCE/WEEK | COMPOSITE |
| TEMPERATURE (°F) | 90 | 95 | CONTINUOUS | CONTINUOUS |
| TOTAL CADMIUM (mg/l) | (5) | (5) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL CHROMIUM (mg/l) | " | " | " | " |
| TOTAL LEAD (mg/l) | " | " | " | " |
| TOTAL MERCURY (mg/l) | " | " | " | " |
| TOTAL ZINC (mg/l) | " | " | " | " |
| pH | -- | (6) | CONTINUOUS | CONTINUOUS |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 16, 1993

Steven L. Costa
Project Manager
CH2M Hill
P.O. Box 12681
Oakland, CA 94604-2681

Re: Approval of Revised Joint Cannery Outfall Eutrophication Study Plan

Dear Steve:

We have reviewed both the original (9/1/93) and the revised (9/9/93) proposed eutrophication study plan, required by the canneries' NPDES permits. In general, the plans appear to be adequate in design and scope and we approve the complete study plan--the field study portion as well as the data analysis and modeling. We also approve the extension of completion of the eutrophication study by six months so that the field portion of the study can be conducted concurrently with the second dye study. Thus, the eutrophication study will be completed within 18 months of effective date of permit (changed from one year). Minor comments to the plan are listed below:

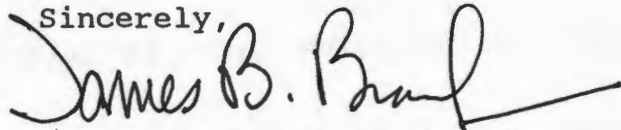
1. We consulted with Anne Seglio and Mike Behrenfeld, productivity experts at ORD/ERL in Newport, Oregon, regarding the proposed substitution of chlorophyll-a concentrations and cell counts as an acceptable measurement of the effects of nutrient stimulation in place of the originally-proposed carbon-14 uptake measurements. Their recommendation is that, in addition to the algal biomass changes, measurement of dissolved oxygen (DO) changes would provide confirmatory data for the effects of nutrient stimulation. The DO changes would provide information about the effects of bacteria on phytoplankton death and decay, in addition to growth stimulation. They believe that carbon-14 uptake measurements would likely overestimate the nutrient stimulatory effects, whereas the revised proposal, together with DO measurements, would tend to be more conservative (and more accurate).
2. One of the reviewers at EPA Region 9 expressed concern that CH2M Hill will rely too heavily on historical sediment and water quality data obtained by agencies of the American Samoa Government (see Analysis of Available Data on page 5). There is reason to believe that some of this past data may be inaccurate or obtained with less than optimum QA/QC procedures. We suggest that CH2M Hill use rely more on the 1979

Baseline Water Quality Survey data obtained by M&E Pacific, Inc., or the field data obtained by CH2M Hill in earlier surveys.

3. Other questions raised were whether 3 sample sites, one each from the Inner, Middle and Outer Harbor, would be sufficient, and how would the locations of these sites be selected. It is recommended that the sampling sites be chosen in consultation with the American Samoa Environmental-Protection Agency.

Please call Pat Young at 415/744-1594 if you have any questions regarding the above.

Sincerely,



for Norman L. Lovelace, Chief
Office of Pacific Island and Native
American Programs (E-4)

cc: Jim Cox, Van Camp Seafood Company
Norman Wei, StarKist Seafood Company
Tony Tausaga, American Samoa EPA
Sheila Wiegman, American Samoa EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, Ca. 94105-3901

MEMORANDUM

SEP 14 1993

SUBJECT: Proposed Eutrophication and Model Prediction
Verification Study Plans

TO: Pat Young
American Samoa Program Manager (E-4)

FROM: David Stuart *D. Stuart*
Maine Protection Section (W-7-1)

THRU: Janet Hashimoto *J. Hashimoto*
Chief, Marine Protection Section

I have reviewed both the original (9/1/93) and the revised (9/9/93) CH2M Hill proposed eutrophication and model prediction verification study plans, required by the Joint Cannery Outfall NPDES permit. In general, the plans appear to be adequate in design and scope. CH2M Hill was the principal contractor involved in the wastefield transport studies for the San Francisco Ocean Outfall, which we consider a definitive study. Thus, they seem to know the best methods and QA/QC procedures for obtaining accurate results.

My only concern is that CH2M Hill will rely too heavily on historical sediment and water quality data obtained by agencies of the American Samoa Government (see Analysis of Available Data on p. 5). There is reason to believe that much of this past data is inaccurate or obtained with less than optimum QA/QC procedures. I would suggest that CH2M Hill use instead the 1979 Baseline Water Quality Survey data obtained by M&E Pacific, Inc. or the field data obtained by CH2M Hill in earlier surveys.

I consulted Anne Seglio and Mike Behrenfeld, productivity experts at ORD/ERL in Newport, Oregon, regarding the proposed substitution of chlorophyll concentrations and cell counts as an acceptable measurement of the effects of nutrient stimulation in place of the originally-proposed carbon-14 uptake measurements. Their recommendation is that, in addition to the algal biomass changes, measurement of dissolved oxygen (DO) changes would provide confirmatory data for the effects of nutrient stimulation. The DO changes would provide information about the effects of bacteria on phytoplankton death and decay in addition to growth stimulation. They believe that carbon-14 uptake measurements would likely overestimate the nutrient stimulatory effects, whereas the revised proposal together with DO measurements would tend to be more conservative (more accurate).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

August 31, 1993

Steven L. Costa
Project Manager
CH2M Hill
P.O. Box 12681
Oakland, CA 94604-2681

Re: Approval of Draft Joint Cannery Outfall Sediment Study Plan
for Second Sampling Period

Dear Steve:

We reviewed the draft study plan for the second period of the sediment monitoring studies required by the canneries' NPDES permits and find that CH2M Hill's response to comments made by our office and American Samoa agencies on the first study plan, adequately addressed our concerns and were incorporated into the first sampling episode where appropriate. The second study plan is hereby approved.

We considered the proposed modification to the monitoring schedule and the advantages to this modified schedule and agree with the changes. Thus the approved schedule for sampling episodes shall be as follows: 2/93, 10/93, 2/95, 2/96 and 2/97.

Please call Pat Young at 415/744-1594 if you have any questions.

Sincerely,

Norman L. Lovelace, Chief
Office of Pacific Island and Native
American Programs (E-4)

cc: Jim Cox, Van Camp Seafood Company
Norman Wei, StarKist Seafood Company
Tony Tausaga, American Samoa EPA
Sheila Wiegman, American Samoa EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, Ca. 94105-3901

12 NOV 1992

Norman Wei
Senior Manager
Environmental Engineering
Star-Kist Seafood Company
180 East Ocean Blvd.
Long Beach, CA 90802

Re: NPDES Permit No. AS0000019: Corrections to Permit

Dear Mr. Wei:

The letter sent on November 9, 1992 from Terry Oda regarding the above subject inadvertently referred to the wrong permit number and should have referenced Samoa Packing's NPDES No. AS0000019. Please replace page 2 of the permit with the attached corrected version (Attachment 1) for Permit No. AS0000019.

Should you have any questions regarding the above, please contact Pat Young at (415) 744-1591 or Doug Liden at (415) 744-1921.

Sincerely,

Pat Young
Pat Young
American Samoa Program Manager
Office of Pacific Island and
Native American Programs

Attachment

cc: Maurice Callaghan, Star-Kist Samoa, Inc.
Pati Faiai, ASEPA
Sheila Wiegman, ASEPA

A. EFFLUENT LIMITS AND MONITORING REQUIREMENTS

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall 001.

The effluent shall be sampled prior to its commingling with effluent from the other cannery.

Such discharges shall be limited and monitored by the permittee as specified below:⁽¹⁾

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|-----------------------------------|-----------------------|------------|-------------------------|---------------------|
| | 30-DAY AVG. | DAILY MAX. | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW (MGD) | -- | 2.9 | CONTINUOUS | RECORDER |
| BIOCHEMICAL OXYGEN DEMAND (5-DAY) | (5) | (5) | TWICE/MONTH | COMPOSITE |
| SUSPENDED SOLIDS (lbs/day) | 2653 | 6673 | TWICE/WEEK | COMPOSITE |
| OIL AND GREASE (lbs/day) | 675 | 1688 | TWICE/WEEK | GRAB ⁽²⁾ |
| TOTAL PHOSPHORUS (lbs/day) | 192 | 309 | (3) | COMPOSITE |
| TOTAL NITROGEN (lbs/day) | 1200 | 2100 | (3) | COMPOSITE |
| ACUTE TOXICITY | -- | (4) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL AMMONIA (mg/l) | -- | 133 | ONCE/WEEK | COMPOSITE |
| TEMPERATURE (°F) | 90 | 95 | CONTINUOUS | CONTINUOUS |
| TOTAL CADMIUM (mg/l) | (5) | (5) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL CHROMIUM (mg/l) | " | " | " | " |
| TOTAL LEAD (mg/l) | " | " | " | " |
| TOTAL MERCURY (mg/l) | " | " | " | " |
| TOTAL ZINC (mg/l) | " | " | " | " |
| pH | -- | (6) | CONTINUOUS | CONTINUOUS |

Norman Wei
Senior Manager
Environmental Engineering
Star-Kist Seafood Company
180 East Ocean Blvd.
Long Beach, CA 90802

Re: NPDES Permit No. AS0000019: Corrections to Permit

Dear Mr. Wei:

The letter sent on November 9, 1992 from Terry Oda regarding the above subjects inadvertently referred to the wrong permit number and should have referenced Samoa Packing's NPDES No. AS0000019. Please replace page 2 of the permit with the attached corrected version (Attachment 1) for Permit No. AS0000019.

Should you have any questions regarding the above, please contact Pat Young at (415) 744-1591 or Doug Liden at (415) 744-1921.

Sincerely,

Pat Young
American Samoa Program Manager
Office of Pacific Island and
Native American Programs

Attachment

cc: Maurice Callaghan, Star-Kist Samoa, Inc.
Pati Faiai, ASEPA
Sheila Wiegman, ASEPA

bc: Doug Liden
Mike Lee
Pat Young



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, Ca. 94105-3901

NOV 09 1992

Norman Wei
Senior Manager
Environmental Engineering
Star-Kist Seafood Company
180 East Ocean Blvd.
Long Beach, CA 90802

Re: NPDES Permit No. AS0000027: Corrections to Permit

Dear Mr. Wei:

As noted in your memo to us of October 12, 1992, the typographical errors on page 2 of the National Pollution Discharge and Elimination System (NPDES) Permit No. AS0000027, recently issued to Star-Kist Samoa, Inc., have been corrected:

1. Footnote for biochemical oxygen demand (5-day) changed from (6) to (5). Note (5) refers to "No limit set at this time."
2. The spelling of the word "oxygen" in "Biochemical Oxygen Demand".
3. The second sentence in paragraph 2 now reads, "The effluent shall be sampled prior to its commingling with effluent from the other cannery." (The words "commingling" and "cannery" had been misspelled.

Please replace page 2 of the permit with the attached corrected version (Attachment 1).

Should you have any questions regarding the above, please contact Pat Young at (415) 744-1591 or Doug Liden at (415) 744-1921.

Sincerely,

A handwritten signature in dark ink, appearing to read "Terry Oda", with a long horizontal line extending to the right.

Terry Oda
Chief, Permits Issuance Section
Water Management Division

Attachment

cc: Maurice Callaghan, Star-Kist Samoa, Inc.
Pati Faiai, ASEPA
Sheila Wiegman, ASEPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

75
San Francisco

NOV 09 1992

Norman Wei
Senior Manager
Environmental Engineering
Star-Kist Seafood Company
180 East Ocean Blvd.
Long Beach, CA 90802

Re: NPDES Permit No. AS000002

Dear Mr. Wei:

As noted in your memo to the Regional Administrator, there were graphical errors on page 2 of the NPDES Permit Application for the Star-Kist Samoa, Inc., have been identified.

1. Footnote for biochemistry changed from (6) to (5). No change at this time."
2. The spelling of the word "Demand".
3. The second sentence of the effluent shall be same as effluent from the other plant "gling" and "cannery"

Please replace page 2 with the corrected version (Attachment 1)

Should you have any questions, please contact Pat Young at (415) 744-1921.

Attachment

cc: Maurice Callaghan, Star-Kist
Pati Faiai, ASEPA
Sheila Wiegman, ASEPA

A. EFFLUENT LIMITS AND MONITORING REQUIREMENTS

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall 001.

The effluent shall be sampled prior to its commingling with effluent from the other cannery.

Such discharges shall be limited and monitored by the permittee as specified below:⁽¹⁾

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|-----------------------------------|-----------------------|------------|-------------------------|---------------------|
| | 30-DAY AVG. | DAILY MAX. | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW (MGD) | -- | 0.72 | CONTINUOUS | RECORDER |
| BIOCHEMICAL OXYGEN DEMAND (5-DAY) | (5) | (5) | TWICE/MONTH | COMPOSITE |
| SUSPENDED SOLIDS (lbs/day) | 2304 | 5312 | TWICE/WEEK | COMPOSITE |
| OIL AND GREASE (lbs/day) | 538 | 1344 | TWICE/WEEK | GRAB ⁽²⁾ |
| TOTAL PHOSPHORUS (lbs/day) | 208 | 271 | (3) | COMPOSITE |
| TOTAL NITROGEN (lbs/day) | 800 | 1935 | (3) | COMPOSITE |
| ACUTE TOXICITY | -- | (4) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL AMMONIA (mg/l) | -- | 133 | ONCE/WEEK | COMPOSITE |
| TEMPERATURE (°F) | 90 | 95 | CONTINUOUS | CONTINUOUS |
| TOTAL CADMIUM (mg/l) | (5) | (5) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL CHROMIUM (mg/l) | " | " | " | " |
| TOTAL LEAD (mg/l) | " | " | " | " |
| TOTAL MERCURY (mg/l) | " | " | " | " |
| TOTAL ZINC (mg/l) | " | " | " | " |
| pH | -- | (6) | CONTINUOUS | CONTINUOUS |

NOV 09 1992

Norman Wei
Senior Manager
Environmental Engineering
Star-Kist Seafood Company
180 East Ocean Blvd.
Long Beach, CA 90802

Re: NPDES Permit No. AS0000027: Corrections to Permit

Dear Mr. Wei:

As noted in your memo to us of October 12, 1992, the typographical errors on page 2 of the National Pollution Discharge and Elimination System (NPDES) Permit No. AS0000027, recently issued to Star-Kist Samoa, Inc., have been corrected:

1. Footnote for biochemical oxygen demand (5-day) changed from (6) to (5). Note (5) refers to "No limit set at this time."
2. The spelling of the word "oxygen" in "Biochemical Oxygen Demand".
3. The second sentence in paragraph 2 now reads, "The effluent shall be sampled prior to its commingling with effluent from the other cannery." (The words "commingling" and "cannery" had been misspelled.

Please replace page 2 of the permit with the attached corrected version (Attachment 1).

Should you have any questions regarding the above, please contact Pat Young at (415) 744-1591 or Doug Liden at (415) 744-1921.

Sincerely,

Terry Oda
Chief, Permits Issuance Section
Water Management Division

cc: Maurice Callaghan, Star-Kist Samoa, Inc.
Pati Faiai, ASEPA
Sheila Wiegman, ASEPA

bc: Mike Lee
Doug Liden
Pat Young

E-4
myang
11/5/92

E-4
myang
for NLZ
11/5/92

w-5.1
D Liden
11/6/92

StarKist Seafood Company

Memorandum

| | | | |
|--|-----------|------------|----------|
| Post-It™ brand fax transmittal memo 7671 | | # of pages | 2 |
| To | Pat Young | From | Norm Wei |
| Co. | | Co. | |
| Dept. | | Phone # | |
| Fax # | | Fax # | |

Copy to Doug/Mike

DATE: 12 October, 1992

TO: Pat Young, US EPA Region 9
Program Manager for American Samoa

FROM: Norman Wei *[Signature]*

SUBJECT: New NPDES Permit for StarKist Samoa, Inc.

I wish to thank your agency for its considerations in working with me and Steve Costa in developing this new permit. I believe it is a stringent and yet reasonable discharge permit.

In reviewing the new NPDES permit that was issued by US EPA to StarKist Samoa, Inc., I noticed the following typographical errors on page 2 "Effluent Limits and Monitoring Requirements".

1. The Notes for Biochemical Oxygen Demand (5-day) should be (5) instead of (6) as indicated. Note (5) refers to "No limit set at this time. Monitoring and reporting only" whereas Note (6) refers exclusively to the daily maximum limit for pH.
2. The word "Oxygen" in Biochemical Oxygen Demand was misspelled.
3. The second sentence paragraph on page 2 states that "the effluent shall be sampled prior to its comingling with effluent from the other can." The word "can" should be written as "cannery". The word "comingling" should be correctly spelled as "commingling".

You might wish to make the same corrections for Samoa Packing's permit as well.

A. EFFLUENT LIMITS AND MONITORING REQUIREMENTS

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall 001.

The effluent shall be sampled prior to its comingling with effluent from the other can^{very}

Such discharges shall be limited and monitored by the permittee as specified below:⁽¹⁾

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|--|-----------------------|------------|-------------------------|---------------------|
| | 30-DAY AVG. | DAILY MAX. | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW (MGD) | -- | 2.9 | CONTINUOUS | RECORDER |
| BIOCHEMICAL OXYGEN DEMAND (5-DAY) | (5) | (5) | TWICE/MONTH | COMPOSITE |
| SUSPENDED SOLIDS (lbs/day) | 2653 | 6673 | TWICE/WEEK | COMPOSITE |
| OIL AND GREASE (lbs/day) | 675 | 1688 | TWICE/WEEK | GRAB ⁽²⁾ |
| TOTAL PHOSPHORUS (lbs/day) | 192 | 309 | (3) | COMPOSITE |
| TOTAL NITROGEN (lbs/day) | 1200 | 2100 | (3) | COMPOSITE |
| ACUTE TOXICITY | -- | (4) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL AMMONIA (mg/l) | -- | 133 | ONCE/WEEK | COMPOSITE |
| TEMPERATURE (°F) | 90 | 95 | CONTINUOUS | CONTINUOUS |
| TOTAL CADMIUM (mg/l) | (5) | (5) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL CHROMIUM (mg/l) | " | " | " | " |
| TOTAL LEAD (mg/l) | " | " | " | " |
| TOTAL MERCURY (mg/l) | " | " | " | " |
| TOTAL ZINC (mg/l) | " | " | " | " |
| pH | -- | (6) | CONTINUOUS | CONTINUOUS |

Permit No. AS0000019

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"),

Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago, Tutuila
American Samoa 96799

is authorized to discharge tuna processing wastewater from the cannery located at Pago Pago, American Samoa from outfall Discharge Serial No. 001:

Latitude: 14 deg. 17 min. 01 sec. S
Longitude: 170 deg. 40 min. 02 sec. W

to receiving waters named: Pago Pago Harbor in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Sections A through G hereof.

This permit shall become effective on 27 OCT 1992.

This permit and the authorization to discharge shall expire at midnight, 26 OCT 1997.

Signed this 24 day of SEPTEMBER.

For the Regional Administrator

Catherine Kulemon for

Harry Seraydarian
Director
Water Management Division

A. EFFLUENT LIMITS AND MONITORING

1. During the period beginning on the expiration date of this permit, the effluent shall be discharged through the Outfall 001.

The effluent shall be discharged through the Outfall 001.

Such discharges shall be in accordance with the permittee as specified below:⁽¹⁾

of the authorized person through the Outfall 001.

ing with other can.

the permittee as specified below:⁽¹⁾

| EFFLUENT CHARACTERISTIC | EXISTING LIMITS | PROPOSED LIMITS | MONITORING REQUIREMENTS | |
|-----------------------------------|-----------------|-----------------|-------------------------|---------------------|
| | | | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW (MGD) | -- | 2.9 | CONTINUOUS | RECORDER |
| BIOCHEMICAL OXYGEN DEMAND (5-DAY) | (6) | (6) | TWICE/MONTH | COMPOSITE |
| SUSPENDED SOLIDS (lbs/day) | 2653 | 6673 | TWICE/WEEK | COMPOSITE |
| OIL AND GREASE (lbs/day) | 675 | 1688 | TWICE/WEEK | GRAB ⁽²⁾ |
| TOTAL PHOSPHORUS (lbs/day) | 192 | 309 | (3) | COMPOSITE |
| TOTAL NITROGEN (lbs/day) | 1200 | 2100 | (3) | COMPOSITE |
| ACUTE TOXICITY | -- | (4) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL AMMONIA (mg/l) | -- | 133 | ONCE/WEEK | COMPOSITE |
| TEMPERATURE (°F) | 90 | 95 | CONTINUOUS | CONTINUOUS |
| TOTAL CADMIUM (mg/l) | (5) | (5) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL CHROMIUM (mg/l) | " | " | " | " |
| TOTAL LEAD (mg/l) | " | " | " | " |
| TOTAL MERCURY (mg/l) | " | " | " | " |
| TOTAL ZINC (mg/l) | " | " | " | " |
| pH | -- | (6) | CONTINUOUS | CONTINUOUS |

VanCung to do

N. Wei found boo-boo
10/8

study on waste streams

too? - yes -

OD.

#6 should be

#5

for BOD

A. EFFLUENT LIMITS AND MONITORING REQUIREMENTS

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall 001.

The effluent shall be sampled prior to its comingling with effluent from the other can.

Such discharges shall be limited and monitored by the permittee as specified below:⁽¹⁾

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|-----------------------------------|-----------------------|------------|-------------------------|---------------------|
| | 30-DAY AVG. | DAILY MAX. | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW (MGD) | -- | 2.9 | CONTINUOUS | RECORDER |
| BIOCHEMICAL OXYGEN DEMAND (5-DAY) | (6) | (6) | TWICE/MONTH | COMPOSITE |
| SUSPENDED SOLIDS (lbs/day) | 2653 | 6673 | TWICE/WEEK | COMPOSITE |
| OIL AND GREASE (lbs/day) | 675 | 1688 | TWICE/WEEK | GRAB ⁽²⁾ |
| TOTAL PHOSPHORUS (lbs/day) | 192 | 309 | (3) | COMPOSITE |
| TOTAL NITROGEN (lbs/day) | 1200 | 2100 | (3) | COMPOSITE |
| ACUTE TOXICITY | -- | (4) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL AMMONIA (mg/l) | -- | 133 | ONCE/WEEK | COMPOSITE |
| TEMPERATURE (°F) | 90 | 95 | CONTINUOUS | CONTINUOUS |
| TOTAL CADMIUM (mg/l) | (5) | (5) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL CHROMIUM (mg/l) | " | " | " | " |
| TOTAL LEAD (mg/l) | " | " | " | " |
| TOTAL MERCURY (mg/l) | " | " | " | " |
| TOTAL ZINC (mg/l) | " | " | " | " |
| pH | -- | (6) | CONTINUOUS | CONTINUOUS |

NOTES:

- (1) Where discharge monitoring data is reported as "below detection limit", both the detection limit obtained and the analytical method used shall be included on the monthly discharge monitoring report (DMR).
- (2) Each oil and grease sample shall consist of four individual grab samples ("sub-samples") which shall be taken at even intervals during each production period in which samples are taken. Each sub-sample shall be separately analyzed and the mean value of the four sub-samples, shall be reported for daily maximum and monthly average.
- (3) Permittee is required to sample twice/week on production days. Should the permittee wish to monitor the effluent on a non-production day(s), the permittee must monitor for the six consecutive days following the non-production day on which the first sample was taken. The average of all samples taken during that month will determine compliance with the "monthly average".

Should the canneries consistently comply with their TN and TP limitations and should the monitoring data show that the discharge is not impacting the water quality in the harbor or causing water quality violations for one year, the permit may be modified to incorporate a "weighted average" method of measuring compliance with the limitations. The numerical limitations themselves shall not be made any less stringent.

- (4) See Section D "Toxicity" for monitoring requirements.
- (5) No limit set at this time. Monitoring and reporting only.
- (6) The pH is limited between 6.5 and 8.6 standard units. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and no individual excursions from the range of pH values shall exceed 60 minutes.

B. DISCHARGE SPECIFICATIONS

Samples taken at monitoring stations 8, 8a, 14, 15, 16, 17 and 18 in the receiving water shall not reveal any of the following in accordance with American Samoa Water Quality Standards:

1. Chlorophyll a levels in excess of 1.0 ug/l;
2. Light penetration depth less than 65 feet;
3. Objectionable color, odor, or taste, either alone or in

combinations, or in the biota;

4. Visible floating materials, grease, oil, scum, foam, and other floating material; and,
5. Materials that will produce visible turbidity or settle to form objectionable deposits.

Samples taken at monitoring stations 8, 8a, 15, 16, 17, 18 in the receiving water (those stations outside the zone of initial dilution (ZID)) shall not reveal* any of the following in accordance with American Samoa Water Quality Standards:

1. Dissolved oxygen (DO) concentration less than 5.0 mg/L; or 70% saturation;
2. Turbidity in excess of 0.75 nephelometric turbidity units; and,
3. Toxicity to aquatic life.

Samples taken at monitoring stations 15, 16, 17, and 18 in the receiving water (those stations outside the zone of mixing (ZOM)) shall not reveal* any of the following in accordance with American Samoa Water Quality Standards:

1. A temperature more than 1.5 degrees Fahrenheit from conditions that would occur naturally;
2. A level of total nitrogen in excess of 200 ug/l; and,
3. A level of total phosphorous in excess of 30 ug/l.

*Should any samples of ambient water reveal exceedances of the standards specified above and should ASEPA and/or USEPA determine that the canneries' discharge is the cause of the exceedance, the canneries may be required to undertake various actions including ceasing discharge and/or additional studies or monitoring to determine the cause of the exceedance. Violations of water quality standards shall be determined in accordance with American Samoa Water Quality Standards.

C. PROTECTED AND PROHIBITED USES

1. The protected uses of Pago Pago Harbor are as follows:
 - a. Recreational and subsistence fishing;
 - b. Boat-launching ramps and designated mooring areas;
 - c. Subsistence food gathering, e.g. shellfish harvesting;
 - d. Aesthetic enjoyment;
 - e. Whole and limited body-contact recreation, e.g. swimming, snorkeling, surfing and scuba diving.
 - f. Support and propagation of marine life;
 - g. Industrial water supply;

- h. Mari-culture development;
 - i. Normal harbor activities; e.g. ship movements, docking, loading and unloading, marine railways and floating drydocks; and
 - j. Scientific investigation.
2. Prohibited uses include but are not limited to:
- a. Dumping or discharge of solid waste;
 - b. Animal pens over or adjacent to any shoreline;
 - c. Dredging and filling activities, except when permitted by the American Samoa Environmental Quality Commission (ASEQC) in accordance with the Environmental Quality Act (Title 24, American Samoa Code); AND
 - d. Radioactive waste discharges; and
 - e. Discharge of oil sludge, oil refuse, fuel oil, or bilge water, or any other waste water from any vessel or unpermitted shoreside facility.

The permittee shall not engage in any of the above prohibited uses nor in any uses that would conflict with the protected uses of the harbor.

D. TOXICITY

1. Proposed Effluent Biomonitoring

Beginning 90 days after the effective date of this permit, the permittee shall conduct, or have a contract laboratory conduct, semi-annual 96-hr. static renewal acute bioassays on composite effluent samples according to the methods described in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fourth Edition EPA/600/4-90/027) using the white shrimp, Penaeus vannamei postlarvae. Tests shall be conducted using a ≤ 0.5 dilution series (ie., 100%, 25%, 12.5%, 6.25%, 3.13%, 1.56%).

Use probit analysis to calculate the LC50 and 95% confidence intervals. Use Analysis of Variance and Dunnett's multiple comparison test to calculate the No Observed Effect Concentrations (NOECs). These results will be reported on the permittee's Discharge Monitoring Reports (DMR's).

2. Priority Pollutant Scan

The permittee shall have a priority pollutant scan of the effluent conducted concurrent with the bioassays required above. The results of shall be submitted to the USEPA and ASEPA within 4 months of the effective date of the permit and yearly thereafter.

3. Toxicity Reopener

Should any of the monitoring indicate that the discharge causes, has reasonable potential to cause, or contributes to an excursion above a water quality criteria, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity, or to implement any EPA-approved new state water quality standards or testing methods applicable to effluent toxicity.

E. RECEIVING WATER QUALITY MONITORING PROGRAM

To determine compliance with water quality standards, the receiving water quality monitoring program must document water quality at the outfall, at areas near the zone of initial dilution (ZID) and zone of mixing (ZOM) boundaries, at areas beyond these zones where discharge impacts might reasonably be expected, and at reference/control areas. The permittee, cooperatively with Samoa Packing Co., shall perform or cause to be performed, water quality monitoring at stations along the shoreline and offshore at regular frequencies as detailed below.

Should any monitoring or studies reveal, in the judgement of either ASEPA or EPA, that the water quality, coral reef, or overall biological health of the harbor is being impaired as a result of the new outfall discharge, either agency may at any time prohibit further discharge and/or require additional monitoring.

All water quality samples should be collected and processed according to the protocols found in EPA's guidance document entitled, Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods (EPA, 1987a). Monitoring reports shall be submitted to EPA on a quarterly basis.

Monitoring stations shall be designated and located as shown (also see Figures 1 and 2):

| <u>Station</u> | <u>Vicinity</u> | <u>Location</u> | <u>Coordinates</u> | |
|----------------|-----------------|-----------------|--------------------|------------------|
| | | | <u>Latitude</u> | <u>Longitude</u> |
| 5 | Transition Zone | | 170° 39' .72W | 14° 17' .88S |
| 6 | Outer harbor | Central | 170° 40' .20W | 14° 17' .52S |
| 7 | Outer harbor | East, South | 170° 39' .93W | 14° 17' .37S |
| 8 | Outer harbor | East | 170° 40' .07W | 14° 17' .17S |
| 8a | Middle harbor | East | 170° 40' .13W | 14° 16' .88S |
| 9 | Middle harbor | East | 170° 40' .18W | 14° 16' .66S |
| 9a | Middle harbor | East | 170° 40' .57W | 14° 16' .58S |
| 10 | Middle harbor | West | 170° 40' .75W | 14° 16' .87S |
| 11 | Inner harbor | Center, East | 170° 40' .90W | 14° 16' .58S |
| 11a | Inner harbor | Center, East | 170° 41' .13W | 14° 16' .62S |
| 12 | Inner harbor | Center | 170° 41' .33W | 14° 16' .60S |
| 13 | Inner harbor | Center, West | 170° 41' .71W | 14° 16' .50S |
| 14 | Middle harbor | Diffuser | 170° 40' .03W | 14° 16' .58S |
| 15 | Middle harbor | ZOM Edge, North | 170° 40' .12W | 14° 16' .77S |
| 16 | Middle harbor | ZOM Edge, West | 170° 40' .17W | 14° 16' .56S |
| 17 | Middle harbor | ZOM Edge, East | 170° 39' .91W | 14° 16' .90S |
| 18 | Outer harbor | ZOM Edge, South | 170° 40' .08W | 14° 17' .10S |

It is recommended that the stations be located using the sextant angle resection positioning method or a positioning system which affords an equivalent degree of accuracy and precision. Other means may be used if, in the judgment of ASEPA and EPA Region 9, they are of sufficient accuracy and precision to allow reoccupation of the stations within plus or minus six (6) meters.

The following shall constitute the Water Quality Monitoring Program as shown:

| <u>Parameter</u> | <u>Units</u> | <u>Sample Stations</u> | <u>Sample Type</u> | <u>Frequency</u> |
|-------------------|--------------|------------------------|--------------------|------------------|
| Temperature | °F | all | grab | monthly |
| pH | | " | " | " |
| Dissolved Oxygen | mg/l | " | " | " |
| Suspended Solids | mg/l | " | " | " |
| Light Penetration | ft | " | " | " |
| Turbidity | NTU | " | " | " |
| Salinity | ppt | " | " | " |
| Chlorophyll a | ug/l | " | " | " |
| Total Nitrogen | ug/l | " | " | " |
| Total Phosphorus | ug/l | " | " | " |
| Total Ammonia | ug/l | " | " | " |

Measurements should be taken at three depths for each location: 1 meter above the bottom, 1 meter below the surface, and at mid-depth.

F. DYE OR TRACER STUDIES

Within one week of the effective date of this permit, the permittee shall submit a plan to the ASEPA and EPA to perform dye and/or tracer studies in order to better understand the fate of the effluent plume. The permittee shall perform these studies twice for one year (once during each of the two primary seasons of the year) and submit its findings 30 days after conducting each study. The date of the first study must be approved by USEPA and ASEPA and shall occur at the earliest possible time a distinct oceanographic season is in effect and no later than four months of the effective date of the permit.

G. SEDIMENT MONITORING

Sediment monitoring is conducted to determine the character of the sediments in relation to long-term high nutrient discharge by the permittee in the harbor and if harbor recovery will be affected by resuspension of the nutrients.

The permittee, cooperatively with Samoa Packing Co., shall undertake a yearly sediment monitoring program in Pago Pago Harbor in order to assess the concentration of nutrient and organic components, the distribution of stored nutrients, the size of the nutrient reservoir and the rate of accumulation of nutrients. Seven sites shall be located within Pago Pago Harbor and analyzed for total nitrogen, total phosphorus, percent organics, percent solids, bulk density, oxidation-reduction potential and sulfides. Three sites shall be located in inner Pago Pago Harbor and four sites shall be located in the outer harbor. These sites and monitoring plan shall be submitted within three months of the effective date of the permit for approval by ASEPA and EPA. Thereafter, these sites shall be approved annually by the anniversary date of the effective date of the permit. A report of the sediment monitoring program findings shall be submitted to the ASEPA and EPA 90 days after completion of sampling.

After the first two studies have been performed and the results have been assessed the permit may be reopened for the inclusion of a more frequent or less frequent monitoring schedule.

H. EUTROPHICATION STUDY

The permittee cooperatively with Samoa Packing Co., shall complete a study in which a direct assessment of the algal-nutrient relationships in Pago Pago Harbor is obtained. This study shall include construction of algal-nutrient response curves for a range of nitrogen-to-phosphorus ratios, nitrogen

and phosphorus levels, salinity levels, and phytoplankton communities. This study is not intended to be exhaustive in nature, but to provide information on phytoplankton dynamics in Pago Pago Harbor. The study may be partially completed utilizing data from past and future water quality and sediment monitoring programs and/or may be conducted in conjunction with these programs as possible.

A proposed study design shall be submitted to ASEPA and EPA for approval within six months of the effective date of the permit. The study shall be completed and report submitted to ASEPA and EPA within one year of the effective date of the permit.

I. CORAL REEF SURVEY

Within six months of the effective date of this NPDES permit, the permittee, in cooperation with Samoa Packing Co., shall submit a field study design for approval by ASEPA and EPA Region 9 to assess the potential impacts of the discharge on the nearby coral reef. The study shall include coral reef transects which shall conform to locations found on Figure 4 in the USE ATTAINABILITY AND SITE-SPECIFIC CRITERIA ANALYSES; PAGO PAGO HARBOR, AMERICAN SAMOA, FINAL REPORT (CH2M Hill, March 15, 1991). The intent of this annual survey is to detect significant differences, if any, from the database information found in the above-cited document. Videos shall be submitted to both the USEPA and ASEPA. Guidance for designing such surveys is provided in the "Design of 301(h) Monitoring Programs for Municipal Wastewater Discharges to Marine Waters," November 1982, EPA #430/0-82-010 (pages 70-71). In addition, the discharger should consult "Ecological Impacts of Sewage Discharges on Coral Reef Communities," September 1983, EPA #430/9-83-010, for further information. The study shall be conducted within one year of the effective date of this permit and every two years thereafter.

J. VERIFICATION OF MODELING PREDICTIONS

Within three months after both dye studies have been completed, the permittee, cooperatively with Samoa Packing Co., shall submit a study plan to USEPA and ASEPA that will discuss how the permittees will utilize the results from the monitoring data and from the dye studies to verify the models used in the determination of the mixing zones (the 30-second dilution zone, the ZID, and the ZOM). Also, the plan shall discuss how the permittee will examine the effects of BOD₅ in the effluent on Dissolved Oxygen (DO) in the receiving water, utilizing an appropriate model and one year's worth of

ambient data. Upon approval of the study plan by USEPA and ASEPA, the permittee shall initiate the studies indicated and submit reports on a yearly basis. Reports shall summarize renewed predictions of dilution rates and the size, location, and movement of the plume based on the calibrated models.

K. WASTEWATER TREATMENT SYSTEM EVALUATION

The permittee shall retain an independent consultant(s) to conduct a complete diagnostic evaluation of the wastewater treatment system. The purpose of the evaluation is to review current plant operations and equipment and to identify possible modifications in order to decrease pollutant loads, specifically of nitrogen and phosphorus, to the harbor.

The evaluation shall identify all the components of the wastewater treatment system. Nitrogen, phosphorus, total suspended solids, oil and grease loadings from each waste stream of the Dissolved Air Flotation (DAF) influent (thaw-water, spray-cooling, plant-washdown) shall be determined. Methods for reducing the amount of wastewater and the pollutant loadings of the components of the DAF influent shall be examined.

The DAF equipment shall be reviewed to determine its effectiveness. The report should examine the working order of the equipment and the existing system controls. The report shall compare the design parameters of the DAF system with the average and maximum operating values for air-to-solids ratio (lb air:lb solids), solids loading (lb/ft²/hr), and hydraulic loading (gpm/ft²).

Current chemical treatment shall be analyzed to determine effective dosages. Jar and pilot DAF chemical coagulating testing shall be performed using at least three coagulants. Reduction in nitrogen and phosphorous, and total suspended solids shall be reported for each chemical tested and compared to current treatment.

In conclusion, the report shall list in order of importance all recommended improvements to the system, and estimate the cost of each improvement.

This study shall be performed and a report submitted to the ASEPA, and the EPA within one year of the effective date of this permit and again by the expiration date of this permit. The permittee shall submit for approval by ASEPA and EPA, within sixty days of completing the report, a schedule for implementing the recommended improvements. Should the permittee view some of the improvements economically infeasible or technically impossible, the report should

substantiate those views.

If such a study has been performed during the two years preceding the effective date of this permit, the permittee is not required to have the first study performed. The permittee must, however submit an implementation schedule within sixty days of the effective date of this permit. One year from the effective date of this permit, and annually thereafter, a report shall be submitted documenting the progress made in implementing these recommendations.

L. POLLUTION PREVENTION PROGRAM

1. Within six months of the effective date of this permit, the permittee shall develop and implement a Pollution Prevention Program. The purpose of the program is to evaluate and implement methods of reducing or eliminating pollutants listed under section A of this permit from the outfall, stormwater drain(s), plant-site runoff, sludge disposal and fishing vessels. A component of this plan will be a water conservation program.
2. The permittee shall review all facility components or systems (including storage areas; in-plant transfer, process and handling areas; loading and unloading operations; and sludge and waste disposal areas) where these pollutants are generated, stored or handled to evaluate methods for reducing the release of these pollutants to the harbor. In performing such an evaluation, the permittee shall consider ways of preventing fish scraps, oil and grease, etc., from entering the wastewater streams and shall consider typical industry practices such as employee training, inspections and records, preventive maintenance, and good housekeeping. In addition, the permittee may consider structural measures (such as secondary containment devices) where appropriate.
3. The permittee shall retain an independent consultant(s) to determine the source of the high levels of metals (Cadmium, Chromium, Lead, Mercury, and Zinc) in the cannery's effluent, and shall examine methods to reduce the current levels. Such an analysis shall be submitted to the ASEPA and USEPA for approval within six months of the effective date of this permit.
4. The Pollution Prevention Program shall also evaluate ways of preventing fishing vessels from discharging engine oil into the harbor. Such a plan shall explore options such as accepting used oil for burning in the cannery's boilers or for recycling, issuing a multi-lingual

statement to each fishing vessel outlining the regulations against illegal dumping, and establishing a company policy that would prohibit the canneries from purchasing tuna from any vessel found responsible for discharging oil.

5. The Pollution Prevention Program shall be documented in narrative form and shall include any necessary pilot plans, drawings or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the program and may be incorporated by reference. The Pollution Prevention plan shall be submitted to ASEPA and EPA within six months of the effective date of this permit and a copy shall be maintained at the facility and annual reports submitted documenting program progress.

M. DEFINITIONS

1. "Ambient conditions" means the existing conditions in the surrounding waters not influenced by the discharger's effluent.
2. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility whose operation is necessary to maintain compliance with the terms and conditions of this permit.
3. "Whole-effluent toxicity" is the aggregate toxic effect of an effluent measured directly with a "toxicity test".
4. "Composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of the discharge, whichever is shorter.

"Composite sample" means, for other than flow rate measurement,

- a. A combination of at least eight individual portions obtained at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling.

OR

- b. A combination of at least eight individual portions of equal volume obtained over a 24-hour period. The time interval will vary such that the volume of wastewater discharged between samplings remains constant.

The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

5. "Daily discharge" means:
 - a. For flow rate measurement, the average flow rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.
 - b. For pollutant measurements, the concentration or mass emission rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.

6. "Daily maximum" limit means the maximum acceptable "daily discharge". For pollutant measurements, unless otherwise specified, the results to be compared to the "daily maximum" limit are based on "composite samples."
7. "Duly authorized representative" is one whose:
 - a. Authorization is made in writing by a principal executive officer or ranking elected official;
 - b. Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - c. Written authorization is submitted to the ASEPA and EPA. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements must be submitted to ASEPA and EPA prior to or together with any reports, information, or other applications to be signed by an authorized representative.
8. "Grab sample" is defined as any individual sample collected in a short period of time not exceeding 15 minutes. "Grab samples" shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with "daily maximum" limits.
9. "Hazardous substance" means any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act.
10. "Heavy metals" are, for the purposes of this permit, arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc.
11. "Indirect discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.

12. "Initial dilution" is the process which results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristics of most municipal wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

Numerically, initial dilution is expressed as the ratio of the volume of discharged effluent plus ambient water entrained during the process of initial dilution to the volume of discharged effluent.

13. "Mass emission rate" is obtained from the following calculations for any calendar day:

$$\text{Mass emission rate (lb/day)} = 8.345/N \sum_{i=1}^N Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = 3.785/N \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of samples analyzed in any calendar day. 'Q_i' and 'C_i' are the flow rate (MGD) and the concentration (mg/L), respectively, which are associated with each of the 'N' grab samples which may be taken in any calendar day. If a composite sample is taken, 'C_i' is the concentration measured in the composite sample and 'Q_i' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste stream as follows:

$$\text{Daily concentration} = 1/Q_t \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of component waste streams. 'Q_i' and 'C_i' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Q_t' is the total flow rate of the combined waste streams.

14. "Monthly average" is the arithmetic mean of daily con-

centrations, or of daily "mass emission rates", over the specified monthly period:

$$\text{Average} = 1/N \sum_{i=1}^N X_i$$

in which 'N' is the number of days samples were analyzed during the period and 'Xi' is either the constituent concentration (mg/L) or mass emission rate (kg/day or lb/day) for each sampled day.

15. "100-year frequency flood" means a flood of unusually large magnitude and which is characterized by its infrequent occurrence.
16. "Open coastal waters" means marine waters bounded by 100 fathom (183 m; 600 ft) depth contour and the shoreline excluding bays named in section 24.0206(c)(2)-(4) of the American Samoa water quality standards.
17. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including the pumping facilities.
18. "Pesticides" are, for purposes of this permit, those six constituents referred to in 40 CFR 125.58(m) (demeton, guthion, malathion, mirex, methoxychlor, and parathion).
19. "Pollutant-free wastewater" means infiltration and inflow, cooling waters, and condensates which are essentially free of pollutants.
20. "Priority pollutants" are those constituents referred to in 40 CFR 401.15 and listed in the EPA NPDES Application Form 2C, pp. V-3 through V-9.
21. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a "bypass" or "overflow." It does not mean economic loss by delays in production.
22. "Sludge" means the solid, semi-liquid suspension of solids, residues, screenings, grit, scum and precipitates separated from, or created in wastewater by the unit processes of a treatment system. It also includes, but is not limited to, all supernatant, filtrate, centrate, decantate, and thickener overflow/underflow in the solids handling parts of the wastewater treatment system.

23. "Toxic pollutant" means any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act or under 40 CFR 122, Appendix D. Violation of the maximum daily discharge limitations are subject to the 24-hour reporting requirement (section P.13.f).
24. "Toxicity test" is the means to determine the toxicity of a chemical or an effluent using living organisms. A toxicity test measures the degree of response of an exposed test organism to a specific chemical or effluent.
25. "Toxic unit chronic" is the reciprocal of the effluent dilution that causes no unacceptable effect on the test organisms by the end of the chronic exposure period.
26. "Upset" means any exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations in the permit because of factors beyond the reasonable control of the discharger. It does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation, or those problems the discharger should have foreseen.
27. "Waste", "waste discharge", "discharge of waste", and "discharge" are used interchangeably in this permit. The requirements of this permit are applicable to the entire volume of water, and the material therein, which is disposed of to marine waters.
28. "Weekly average" is the arithmetic mean of daily concentrations, or of daily mass emission rates, over the specified weekly period:

$$\text{Average} = \frac{1}{N} \sum_{i=1}^N X_i$$

in which 'N' is the number of days samples were analyzed during the period and 'Xi' is either the constituent concentration (mg/L) or "mass emission rate" (kg/day or lb/day) for each sampled day.

29. "Zone of initial dilution" (ZID) means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports, providing that the ZID may not be larger than allowed by mixing zone restrictions in applicable water quality standards [40 CFR 125.58(w)]. For purposes of designating monitoring stations, the region within a horizontal distance equal to a specified water depth (usually depth of outfall or

average depth of diffuser) from any point of the diffuser or end of the outfall and the water column above and below that region, including the underlying seabed.

30. "Zone of mixing" (ZOM) means limited areas around outfalls and other facilities approved by ASEQC with the concurrence of EPA to allow for the initial dilution of waste discharges [American Samoa Water Quality Standards].

N. QUALITY ASSURANCE/QUALITY CONTROL

All waste material sampling procedures, analytical protocols, and quality assurance/quality control procedures shall be performed in accordance with guidelines specified by EPA. The following references shall be used by the permittee where appropriate:

1. EPA, 40 CFR 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act;
2. Tetra Tech, Inc. 1985. Summary of the U.S. EPA-approved methods and other guidance for 301(h) monitoring variables. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-693. Tetra Tech, Inc., Bellevue, WA; and
3. Tetra Tech, Inc. 1986. Quality assurance and quality control guidance for 301(h) monitoring programs. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-3968. Tetra Tech, Inc., Bellevue, WA.

O. REPORTING

Monitoring results obtained during the previous 3 months shall be summarized for each month and submitted quarterly on forms to be supplied by EPA, to the extent that the information reported may be entered on the forms. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this permit. Monitoring reports shall be postmarked no later than the 28th day of the month following the completed reporting period. The first report is due 4 months after the effective date of this permit. Signed copies of these and all other reports required herein shall be submitted to the EPA Regional Administrator

and the Government of American Samoa at the following addresses:

Regional Administrator
Environmental Protection Agency
Region 9, Attn: Office of Pacific Island and
Native American Programs (E-4)
75 Hawthorne Street
San Francisco, CA 94105

Director
American Samoa Environmental Protection Agency
Office of the Governor
Pago Pago, American Samoa 96799

P. EPA REGION IX STANDARD CONDITIONS

See attachment.

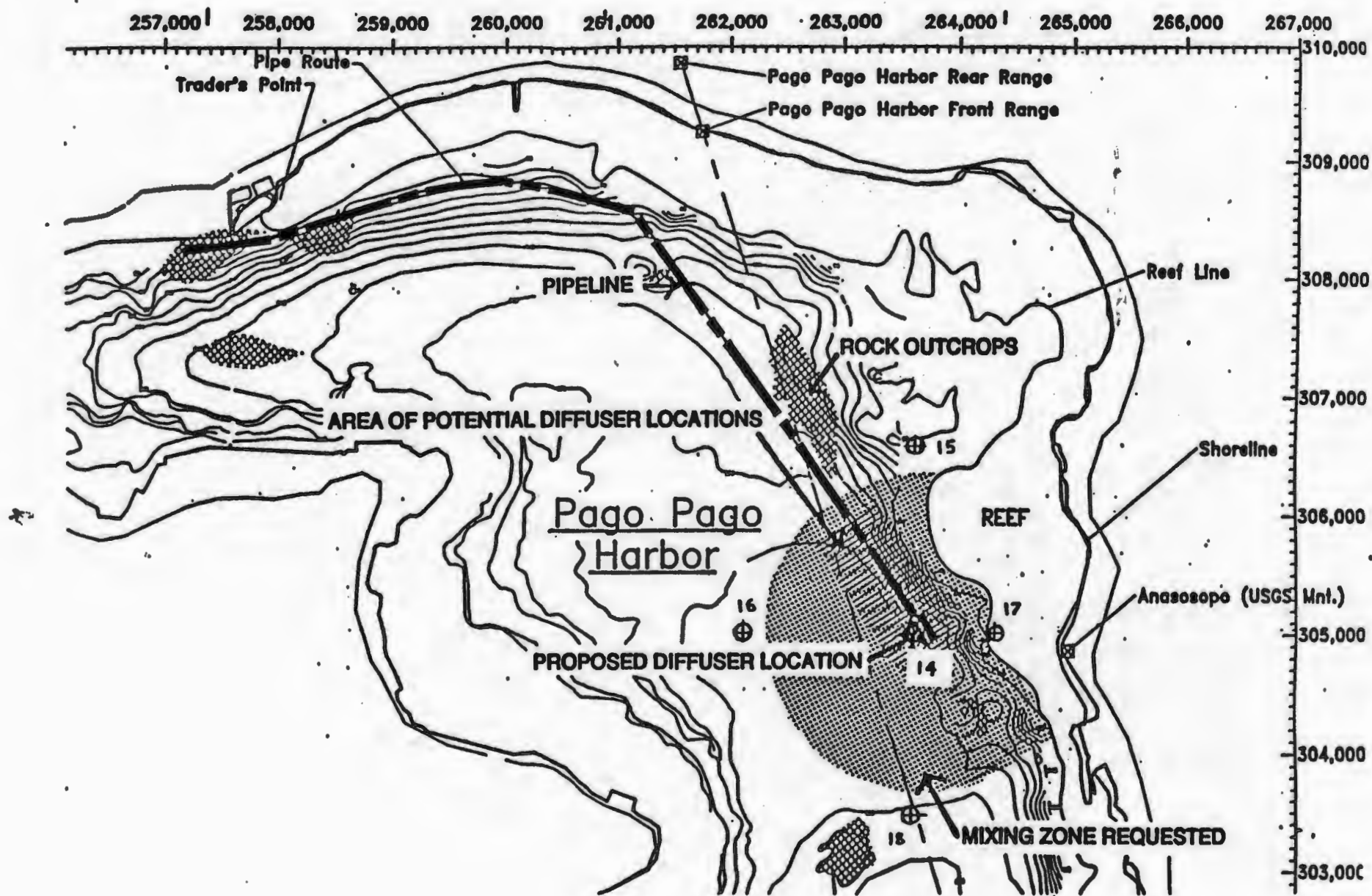


FIGURE 1. NEW MONITORING STATIONS
IN PAGO PAGO HARBOR (14-18)



LEGEND




- 
ASG Sampling Station
- 
Utulei WWTP Station
- 
CH2M HILL Field Measurement Station (1/19/91)

FIGURE 2. LOCATION OF WATER QUALITY STATIONS IN PAGO PAGO HARBOR

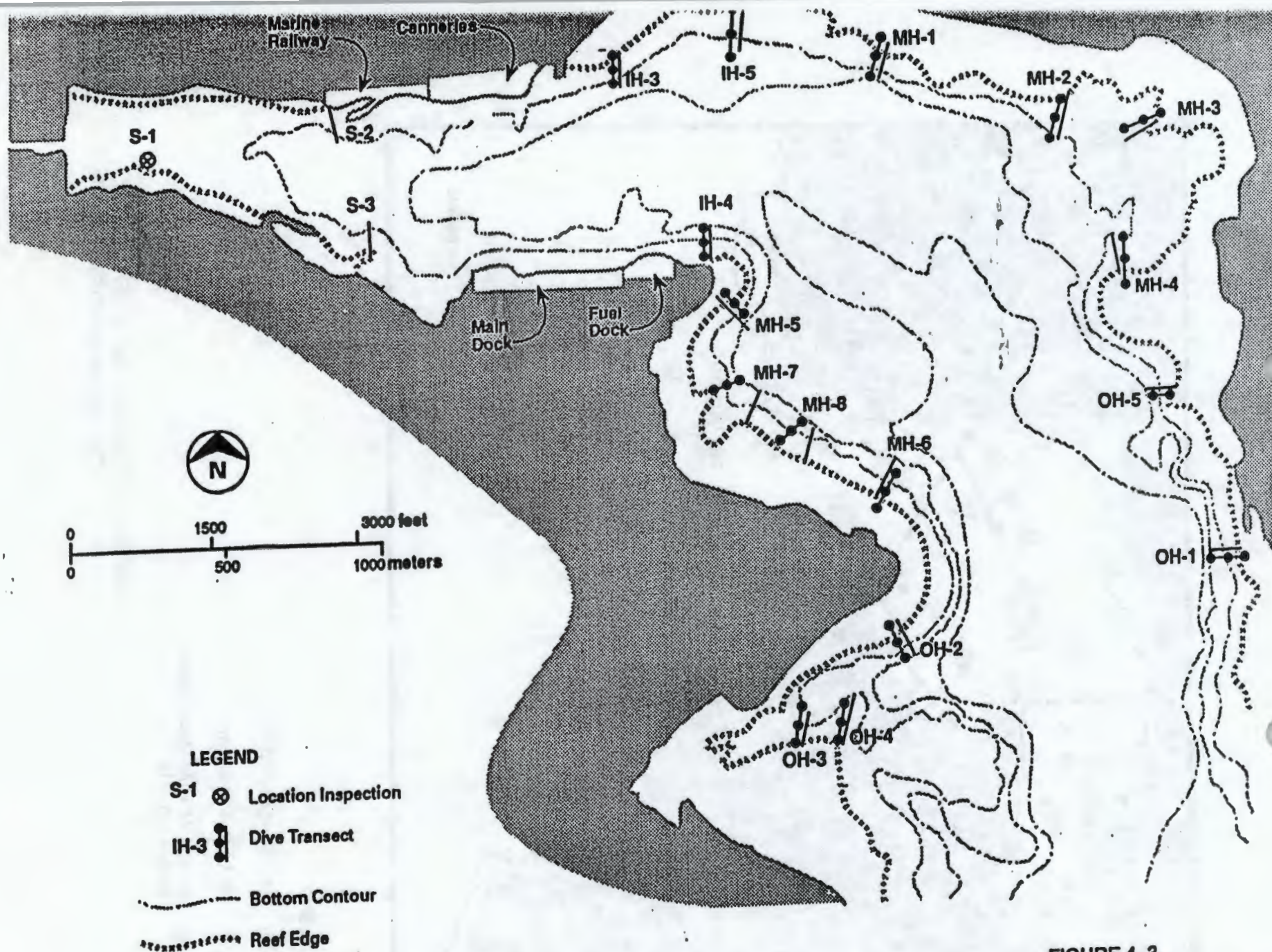


FIGURE 4-3
Coral Reef Transects from 1991 "Use Attainability Analysis", CH2M H

EPA REGION 1. STANDARD FEDERAL NPDES PERMIT CONDITIONS
(Updated as of May 10, 1990)

1. Duty to Reapply [40 CFR 122.21(d)]

The permittee shall submit a new application 180 days before the existing permit expires. 122.2(c)(2) POTW's with currently effective NPDES permits shall submit with the next application the sludge information listed at 40 CFR 501.15(a)(2).

2. Applications [40 CFR 122.22]

a. All permit applications shall be signed as follows:

1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

3) For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

b. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this Section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1) The authorization is made in writing by a person described in paragraph (a) of this section;

2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as

the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,

3) The written authorization is submitted to the Director.

c. Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

d. Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

3. Duty to comply [40 CFR 122.41(a)]

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

b. The Clean Water Act provides that:

- 1) Any person who causes a violation of any condition in this permit is subject to a civil penalty not to exceed \$25,000 per day of each violation. Any person who negligently causes a violation of any condition in this permit is subject to a fine off not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both for a first conviction. For a second conviction, such a person is subject to a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two years, or both. [Updated pursuant to the Water Quality Act of 1987]
 - 2) Any person who knowingly causes violation of any condition of this permit is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than three years, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than \$100,000 per day of violation, or by imprisonment of not more than six years, or both. [Updated pursuant to the Water Quality Act of 1987]
 - 3) Any person who knowingly causes a violation of any condition of this permit and, by so doing, knows at that time that he thereby places another in imminent danger of death or serious bodily injury shall be subject to a fine of not more than \$250,000, or imprisonment of not more than 15 years, or both. A person who is an organization and violates this provision shall be subject to a fine of not more than \$1,000,000 for a first conviction. For a second conviction under this provision, the maximum fine and imprisonment shall be doubled. [Updated pursuant to the Water Quality Act of 1987]
4. Need to halt or reduce activity not a defense [40 CFR 122.41(c)]
- It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
5. Duty to mitigate [40 CFR 122.41(d)]
- The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper operation and maintenance [40 CFR 122.41(e)]

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

7. Permit actions [40 CFR 122.41(f)]

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

8. Property rights [40 CFR 122.41(g)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Duty to provide information [40 CFR 122.41(h)]

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

10. Inspection and entry [40 CFR 122.41(i)]

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

11. Monitoring and records [40 CFR 122.41(j)]

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application, except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Director at any time.
- c. Records of monitoring information shall include:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The individual(s) who performed the sampling or measurements;
 - 3) The date(s) analyses were performed;
 - 4) The individual(s) who performed the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
- d. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, or in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in this permit.
- e. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than

\$20,000 per day of violation, or imprisonment for not more than four years, or both. [Updated pursuant to the Water Quality Act of 1987]

12. Signatory requirement [40 CFR 122.41(k)]

- a. All applications, reports, or information submitted to the Director shall be signed and certified. (See 40 CFR 122.22)
- b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than \$20,000 per day of violation, or imprisonment of not more than four years, or both. [Updated pursuant to the Water Quality Act of 1987]

13. Reporting requirements [40 CFR 122.41(1)]

- a. Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - 1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - 2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).
 - 3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

- c. Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act (CWA). (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory.)
- d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- 1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
 - 2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR, or sludge reporting form specified by the Director.
 - 3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
- e. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- f. Twenty-four hour reporting.
- 1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - 2) The following shall be included as information which must be reported within 24 hours under this paragraph.

- i) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(g).)
 - ii) Any upset which exceeds any effluent limitation in the permit.
 - iii) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See 40 CFR 122.44(g).)
- 3) The Director may waive the written report on a case-by case basis for reports under paragraph (6)(ii) of this section if the oral report has been received within 24 hours.
- g. Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (6) of this section.
- h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.
14. Bypass [40 CFR 122.41(m)]
- a. Definitions
- 1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
 - 2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (3) and (4) of this section.

c. Notice-

- 1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, of possible at least ten days before the date of the bypass.
- 2) Unanticipated bypass. If the permittee shall submit notice of an unanticipated bypass as required in paragraph (a)(6) of section 13) (24-hour notice).

d. Prohibition of bypass.

- 1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
 - i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - iii) The permittee submitted notices as required under paragraph (3) of this section.
- 2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (4)(i) of this section.

15. Upset [40 CFR 122.41(n)]

a. Definition.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (3) of this section are met. No

determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- 1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- 2) The permitted facility was at the time being properly operated; and
- 3) The permittee submitted notice of the upset as required in paragraph 13) (6) (ii) (B) (24-hour notice).
- 4) The permittee complied with any remedial measures required under 40 CFR 122.41(d).

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

16. Existing manufacturing, commercial, mining, and silvicultural dischargers [40 CFR 122.42(a)]

In addition to the reporting requirements under 40 CFR 122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- 1) One hundred micrograms per liter (100 ug/l);
- 2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
- 3) Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
- 4) The level established by the Director in accordance with 40 CFR 122.44(f).

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- 1) Five hundred micrograms per liter (500 ug/l);
- 2) One milligram per liter (1 mg/l) for antimony;
- 3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7);
- 4) The level established by the Director in accordance with 40 CFR 122.44(f).

17. Publicly owned treatment works [40 CFR 122.42(b)]

This section applies only to publicly owned treatment works as defined at 40 CFR 122.2.

a. All POTW's must provide adequate notice to the Director of the following:

- 1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; and
- 2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- 3) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

b. [The following condition has been established by Region 9 to enforce applicable requirements of the Resource Conservation and Recovery Act] Publicly owned treatment works may not receive hazardous waste by truck, rail, or dedicated pipe except as provided under 40 CFR 270. Hazardous wastes are defined at 40 CFR 261 and include any mixture containing any waste listed under 40 CFR 261.31 - 261.33. The Domestic Sewage Exclusion (40 CFR 261.4) applies only to wastes mixed with domestic sewage in a sewer leading to a publicly owned treatment works and not to mixtures of hazardous wastes and sewage or septage delivered to the treatment plant by truck.

18. Reopener clause [40 CFR 122.44(c)]

This permit shall be modified or revoked and reissued to incorporate any applicable effluent standard or limitation or standard for sewage sludge use or disposal under sections 301(b)(2)(C), and (D), 304(b)(2), 307(a)(2) and 405(d) which is promulgated or approved after the permit is issued if that effluent or sludge standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant or sludge use or disposal practice not limited in the permit.

19. Privately owned treatment works

[The following conditions were established by Region 9 to enforce applicable requirements of the Resource Conservation and Recovery Act and 40 CFR 122.44(m)]

This section applies only to privately owned treatment works as defined at 40 CFR 122.2.

- a. Materials authorized to be disposed of into the privately owned treatment works and collection system are typical domestic sewage. Unauthorized materials are hazardous waste (as defined at 40 CFR Part 261), motor oil, gasoline, paints, varnishes, solvents, pesticides, fertilizers, industrial wastes, or other materials not generally associated with toilet flushing or personal hygiene, laundry, or food preparation, unless specifically listed under "Authorized Non-domestic Sewer Dischargers" elsewhere in this permit.
- b. It is the permittee's responsibility to inform users of the privately owned treatment works and collection system of the prohibition against unauthorized materials and to ensure compliance with the prohibition. The permittee must have the authority and capability to sample all discharges to the collection system, including any from septic haulers or other unsewered dischargers, and shall take and analyze such samples for conventional, toxic, or hazardous pollutants when instructed by the permitting authority or by an EPA, State or Tribal inspector. The permittee must provide adequate security to prevent unauthorized discharges to the collection system.
- c. Should a user of the privately owned treatment works desire authorization to discharge non-domestic wastes, the permittee shall submit a request for permit modification and an application, pursuant to 40 CFR 122.44(m), describing the proposed discharge. The application shall, to the extent possible, be submitted using EPA Forms 1 and 2C, unless another format is requested by the permitting authority. If the privately owned treatment works or collection system user is different from the permittee, and the permittee agrees to allow the non-domestic discharge, the user shall submit the application and the

permittee shall submit the permit modification request. The application and request for modification shall be submitted at least 6 months before authorization to discharge non-domestic wastes to the privately owned treatment works or collection system is desired.

20. Transfers by modification [40 CFR 122.61(a)]

Except as provided in section 21), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under 40 CFR 122.62(b)(2)), or a minor modification made (under 40 CFR 122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under CWA.

21. Automatic transfers [40 CFR 122.61(b)]

As an alternative to transfers under section 20), any NPDES permit may be automatically transferred to a new permittee if:

- a. The current permittee notifies the Director at least 30 days in advance of the proposed transfer date in paragraph (2) of this section;
- b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
- c. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in the paragraph (2) of this section.

22. Minor modification of permits [40 CFR 122.63]

Upon the consent of the permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following the procedures of 40 CFR Part 124. Any permit modification not processed as a minor modification under this section must be made for cause and with 40 CFR Part 124 draft permit and public notice as required in 40 CFR 122.62. Minor modifications may only:

- a. Correct typographical errors;
- b. Require more frequent monitoring or reporting by the permittee;

- c. Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement; or
- d. Allow for a change in ownership or operational control of a facility where the Director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Director.
- e. Change the construction schedule for a discharger which is a new source. No such change shall affect a discharger's obligation prior to discharge under 40 CFR 122.29.
- f. Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with the permit limits.
- g. When the permit becomes final and effective on or after March 9, 1982, conform to changes respecting 40 CFR 122.41(e), (l), (m)(4)(i)(B), (n)(3)(i), and 122.42(a) issued September 26, 1984.
- h. Incorporate conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 as enforceable conditions of the POTW's permit.

23. Termination of permits [40 CFR 122.64]

The following are causes for terminating a permit during its term, or for denying a permit renewal application:

- a. Noncompliance by the permittee with any condition of the permit;
- b. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;
- c. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
- d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit (for example, plant closure or termination of discharge by connection to a POTW).

24. Availability of Reports [Pursuant to Clean Water Act Section 308]

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Regional Administrator. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

25. Removed Substances [Pursuant to Clean Water Act Section 301].

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

26. Severability [Pursuant to Clean Water Act Section 512]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and remainder of this permit, shall not be affected thereby.

27. Civil and Criminal Liability [Pursuant to Clean Water Act Section 309]

Except as provided in permit conditions on "Bypass" (Section 14) and "Upset" (Section 15), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

28. Oil and Hazardous Substance Liability [Pursuant to Clean Water Act Section 311]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

29. State or Tribal Law [Pursuant to Clean Water Act Section 510]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by Section 510 of the Clean Water Act.



UNITED STATES ENVIRONMENTAL PROTECTION
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105-3901

file copy

24 MAR 1992

In Reply
Refer To: W-5-1

Maurice Callaghan
General Manager
Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago, American Samoa 96799

Dear Mr. Callaghan:

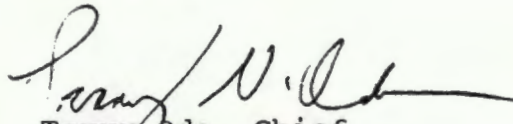
Enclosed is a copy of a public notice of the proposed National Pollutant Discharge Elimination System (NPDES) permit for your company:

Star-Kist Samoa, Inc.
NPDES Permit No. AS00000019

Also enclosed is a copy of the proposed permit. Comments on the proposed permit, or a request for a public hearing, may be submitted to this office at the above address within thirty (30) days following the date of the public notice (3-25-92). If the Regional Administrator finds a significant degree of public interest exists, a public hearing shall be held in accordance with 40 CFR 124.12. If no public hearing is held, the permits will be issued shortly after the expiration date of the 30-day comment period.

If you have any questions regarding the proposed permits, please contact Doug Liden at (415) 744-1921.

Sincerely,


Terry Oda, Chief
Permits Issuance Section

Enclosures

cc: Pati Faiai, Director, ASEPA
Steven Costa, CH2M Hill



UNITED STATES E

San I

24 MAR 1992

Maurice Callaghan
General Manager
Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago, American Samoa

Dear Mr. Callaghan:

Enclosed is a copy of a pul
Pollutant Discharge Elimina
company:

Star-Kist Samoa,
NPDES Permit No.

Draft
Permit

Also enclosed is a copy of
proposed permit, or a requ
submitted to this office at
days following the date of
Regional Administrator find
interest exists, a public l
with 40 CFR 124.12. If no
will be issued shortly afte
comment period.

If you have any questions, p
contact Doug Liden at (415)

Sj

Te
Pe

Enclosures

cc: Pati Faiai, Director,
Steven Costa, CH2M Hill

Permit No. AS00000019

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"),

Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago, Tutuila
American Samoa 96799

is authorized to discharge tuna processing wastewater from the cannery located at Pago Pago, American Samoa from outfall Discharge Serial No. 001:

Latitude: 14 deg. 17 min. 01 sec. S
Longitude: 170 deg. 40 min. 02 sec. W

to receiving waters named: Pago Pago Harbor in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Sections A through G hereof.

This permit shall become effective on _____.

This permit and the authorization to discharge shall expire at midnight, _____.

Signed this _____ day of _____.

For the Regional Administrator

Harry Seraydarian
Director
Water Management Division

A. EFFLUENT LIMITS AND MONITORING REQUIREMENTS

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall 001.

The effluent shall be sampled prior to its comingling with effluent from the other can.

Such discharges shall be limited and monitored by the permittee as specified below:⁽¹⁾

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|-----------------------------------|-----------------------|---------------------|-------------------------|---------------------|
| | 30-DAY AVG. | DAILY MAX. | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW (MGD) | -- | 2.9 | CONTINUOUS | RECORDER |
| BIOCHEMICAL OXYGEN DEMAND (5-DAY) | (6) | (6) | TWICE/MONTH | COMPOSITE |
| SUSPENDED SOLIDS (lbs/day) | 2653 | 6673 | TWICE/WEEK | COMPOSITE |
| OIL AND GREASE (lbs/day) | 675 | 1688 | TWICE/WEEK | GRAB ⁽²⁾ |
| TOTAL PHOSPHORUS (lbs/day) | 192 | 309 | (3) | COMPOSITE |
| TOTAL NITROGEN (lbs/day) | 1200 | 2100 | (3) | COMPOSITE |
| ACUTE TOXICITY | -- | (4) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL AMMONIA (mg/l) | -- | 133 | ONCE/WEEK | COMPOSITE |
| TEMPERATURE (°F) | 90 | 95 | CONTINUOUS | CONTINUOUS |
| TOTAL RESIDUAL CHLORINE (mg/l) | -- | 0.02 ⁽⁵⁾ | ONCE/WEEK | GRAB |
| TOTAL CADMIUM (mg/l) | (6) | (6) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL CHROMIUM (mg/l) | " | " | " | " |
| TOTAL LEAD (mg/l) | " | " | " | " |
| TOTAL MERCURY (mg/l) | " | " | " | " |
| TOTAL ZINC (mg/l) | " | " | " | " |
| pH | -- | (7) | CONTINUOUS | CONTINUOUS |

NOTES:

- (1) Where discharge monitoring data is reported as "below detection limit", both the detection limit obtained and the analytical method used shall be included on the monthly discharge monitoring report (DMR).
- (2) Each oil and grease sample shall consist of four individual grab samples ("sub-samples") which shall be taken at even intervals during each production period in which samples are taken. Each sub-sample shall be separately analyzed and the mean value of the four sub-samples, shall be reported for daily maximum and monthly average.
- (3) Permittee is required to sample twice/week on production days. Should the permittee wish to monitor the effluent on a non-production day(s), the permittee must monitor for the six consecutive days following the non-production day on which the first sample was taken. The average of all samples taken during that month will determine compliance with the "monthly average".
- (4) See Section D "Toxicity" for monitoring requirements.
- (5) Permit limit is effective one year from the effective date of this permit. Monitoring requirements effective immediately. Analytical results for total residual chlorine below 0.05 mg/l may be reported as "Not Quantifiable." This permit may be modified to change this level of quantification if more information becomes available.
- (6) No limit set at this time. Monitoring and reporting only.
- (7) The pH is limited between 6.5 and 8.6 standard units.

B. DISCHARGE SPECIFICATIONS

Samples taken at monitoring stations 8, 8a, 14, 15, 16, 17 and 18 in the receiving water shall not reveal any of the following in accordance with American Samoa Water Quality Standards:

1. Chlorophyll a levels in excess of 1.0 ug/l;
2. Light penetration depth less than 65 feet;
3. Objectionable color, odor, or taste, either alone or in combinations, or in the biota;
4. Visible floating materials, grease, oil, scum, foam, and other floating material; and,
5. Materials that will produce visible turbidity or settle to form objectionable deposits.

Samples taken at monitoring stations 8, 8a, 15, 16, 17, 18 in the receiving water (those stations outside the zone of initial dilution (ZID)) shall not reveal any of the following in accordance with American Samoa Water Quality Standards:

1. Dissolved oxygen (DO) concentration less than 5.0 mg/L; or 70% saturation;
2. Turbidity in excess of 0.75 nephelometric turbidity units; and,
3. Toxicity to aquatic life.

Samples taken at monitoring stations 15, 16, 17, and 18 in the receiving water (those stations outside the zone of mixing (ZOM)) shall not reveal the any of the following in accordance with American Samoa Water Quality Standards:

1. A temperature more than 1.5 degrees Fahrenheit from conditions that would occur naturally;
2. A level of total nitrogen in excess of 200 ug/l; and,
3. A level of total phosphorous in excess of 30 ug/l.

C. PROTECTED AND PROHIBITED USES

1. The protected uses of Pago Pago Harbor are as follows:

- a. Recreational and subsistence fishing;
- b. Boat-launching ramps and designated mooring areas;
- c. Subsistence food gathering, e.g. shellfish harvesting;
- d. Aesthetic enjoyment;
- e. Whole and limited body-contact recreation, e.g. swimming, snorkeling, surfing and scuba diving.
- f. Support and propagation of marine life;
- g. Industrial water supply;
- h. Mari-culture development;
- i. Normal harbor activities; e.g. ship movements, docking, loading and unloading, marine railways and floating drydocks; and
- j. Scientific investigation.

2. Prohibited uses include but are not limited to:

- a. Dumping or discharge of solid waste;
- b. Animal pens over or adjacent to any shoreline;
- c. Dredging and filling activities, except when permitted by the American Samoa Environmental Quality Commission (ASEQC) in accordance with the Environmental Quality Act (Title 24, American Samoa Code); AND
- d. Radioactive waste discharges; and
- e. Discharge of oil sludge, oil refuse, fuel oil, or bilge water, or any other waste water from any vessel or unpermitted shoreside facility.

D. TOXICITY

1. Proposed Effluent Biomonitoring

Beginning 90 days after the effective date of this permit, the permittee shall conduct, or have a contract laboratory conduct, semi-annual 96-hr. static renewal acute bioassays on composite effluent samples according to the methods described in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fourth Edition EPA/600/4-90/027) using the white shrimp, Penaeus vannamei postlarvae. Tests shall be conducted using a ≤ 0.5 dilution series (ie., 100%, 25%, 12.5%, 6.25%, 3.13%, 1.56%).

Use probit analysis to calculate the LC50 and 95% confidence intervals. Use Analysis of Variance and Dunnett's multiple comparison test to calculate the No Observed Effect Concentrations (NOECs). These results will be reported on the permittee's Discharge Monitoring Reports (DMR's).

2. Priority Pollutant Scan

The permittee shall have a priority pollutant scan of the effluent conducted concurrent with the bioassays required above. The results of shall be submitted to the USEPA and ASEPA within 4 months of the effective date of the permit and yearly thereafter.

3. Toxicity Reopener

Should any of the monitoring indicate that the discharge causes, has reasonable potential to cause, or contributes to an excursion above a water quality criteria, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity, or to implement any EPA-approved new state water quality standards or testing methods applicable to effluent toxicity.

E. RECEIVING WATER QUALITY MONITORING PROGRAM

To determine compliance with water quality standards, the receiving water quality monitoring program must document water quality at the outfall, at areas near the zone of initial dilution (ZID) and zone of mixing (ZOM) boundaries, at areas beyond these zones where discharge impacts might reasonably be expected, and at reference/control areas. The permittee, cooperatively with Samoa Packing Co., shall perform or cause to be performed, water quality monitoring at stations along the shoreline and offshore at regular frequencies as detailed below.

Should any monitoring reveal, in the judgement of either ASEPA or EPA, that the water quality, coral reef, or overall biological health of the harbor is being impaired as a result of the new outfall discharge, either agency may at any time prohibit further discharge.

All water quality samples should be collected and processed according to the protocols found in EPA's guidance document entitled, Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods (EPA, 1987a). Monitoring reports shall be submitted to EPA on a quarterly basis.

Monitoring stations shall be designated and located as shown (also see Figures 1 and 2):

| Offshore Station | Vicinity | Location | Coordinates | |
|---------------------|-----------------|-----------------|-------------|-----------|
| | | | Latitude | Longitude |
| 5 | Transition Zone | | | |
| 6 | Outer harbor | Central | | |
| 7 | Outer harbor | East, South | | |
| 8 | Outer harbor | East | | |
| 8a | Middle harbor | East | | |
| 9 | Middle harbor | East | | |
| 9a | Middle harbor | East | | |
| 10 | Middle harbor | West | | |
| 11 | Inner harbor | Center, East | | |
| 11a | Inner harbor | Center, East | | |
| 12 | Inner harbor | Center | | |
| 13 | Inner harbor | Center, West | | |
| 14 | Middle harbor | Diffuser | | |
| 15 | Middle harbor | ZOM Edge, North | | |
| 16 | Middle harbor | ZOM Edge, West | | |
| 17 | Middle harbor | ZOM Edge, East | | |
| 18 | Outer harbor | ZOM Edge, South | | |

It is recommended that the stations be located using the sextant angle resection positioning method or a positioning system which affords an equivalent degree of accuracy and precision. Other means may be used if, in the judgment of ASEPA and EPA Region 9, they are of sufficient accuracy and precision to allow reoccupation of the stations within plus or minus six (6) meters.

The following shall constitute the Water Quality Monitoring Program as shown:

| <u>Parameter</u> | <u>Units</u> | <u>Sample Stations</u> | <u>Sample Type</u> | <u>Frequency</u> |
|-------------------|--------------|------------------------|--------------------|------------------|
| Temperature | °F | all | grab | monthly |
| pH | | " | " | " |
| Dissolved Oxygen | mg/l | " | " | " |
| Suspended Solids | mg/l | " | " | " |
| Light Penetration | ft | " | " | " |
| Turbidity | NTU | " | " | " |
| Salinity | ppt | " | " | " |
| Chlorophyll a | ug/l | " | " | " |

| | | | | |
|------------------|------|---|---|---|
| Total Nitrogen | ug/l | " | " | " |
| Total Phosphorus | ug/l | " | " | " |
| Total Ammonia | ug/l | " | " | " |

Measurements should be taken at three depths for each location: 1 meter above the bottom, 1 meter below the surface, and at mid-depth.

F. DYE OR TRACER STUDIES

Within one week of the effective date of this permit, the permittee shall submit a plan to the ASEPA and EPA to perform dye and/or tracer studies in order to better understand the fate of the effluent plume. The permittee shall perform these studies twice for one year (once during each of the two primary seasons of the year) and submit its findings 30 days after conducting each study. The first study shall be performed within a month after receiving approval from the ASEPA.

G. SEDIMENT MONITORING

Sediment monitoring is conducted to determine the character of the sediments in relation to long-term high nutrient discharge by the permittee in the harbor and if harbor recovery will be affected by resuspension of the nutrients.

The permittee, cooperatively with Samoa Packing Co., shall undertake a yearly sediment monitoring program in Pago Pago Harbor in order to assess the concentration of nutrient and organic components, the distribution of stored nutrients, the size of the nutrient reservoir and the rate of accumulation of nutrients. Seven sites shall be located within Pago Pago Harbor and analyzed for total nitrogen, total phosphorus, percent organics, percent solids, bulk density, oxidation-reduction potential and sulfides. Three sites shall be located in inner Pago Pago Harbor and four sites shall be located in the outer harbor. These sites and monitoring plan shall be submitted within three months of the effective date of the permit for approval by ASEPA and EPA. Thereafter, these sites shall be approved annually by the anniversary date of the effective date of the permit. A report of the sediment monitoring program findings shall be submitted to the ASEPA and EPA 90 days after completion of sampling.

H. EUTROPHICATION STUDY

The permittee cooperatively with Samoa Packing Co., shall complete a study in which a direct assessment of the algal-nutrient relationships in Pago Pago Harbor is obtained. This study shall include construction of algal-nutrient response curves for a range of nitrogen-to-phosphorus ratios, nitrogen and phosphorus levels, salinity levels, and phytoplankton species. This study is not intended to be exhaustive in nature, but to provide information on phytoplankton dynamics

in Pago Pago Harbor. The study may be partially completed utilizing data from past and future water quality and sediment monitoring programs and/or may be conducted in conjunction with these programs as possible.

A proposed study design shall be submitted to ASEPA and EPA for approval within six months of the effective date of the permit. The study shall be completed and report submitted to ASEPA and EPA within one year of the effective date of the permit.

I. CORAL REEF SURVEY

Within six months of the effective date of this NPDES permit, the permittee, in cooperation with Samoa Packing Co., shall submit a field study design for approval by ASEPA and EPA Region 9 to assess the potential impacts of the discharge on the nearby coral reef. The study shall include coral reef transects which shall conform to locations found on Figure 4 in the USE ATTAINABILITY AND SITE-SPECIFIC CRITERIA ANALYSES; PAGO PAGO HARBOR, AMERICAN SAMOA, FINAL REPORT (CH2M Hill, March 15, 1991). The intent of this annual survey is to detect significant differences, if any, from the database information found in the above-cited document. Videos shall be submitted to both the USEPA and ASEPA. Guidance for designing such surveys is provided in the "Design of 301(h) Monitoring Programs for Municipal Wastewater Discharges to Marine Waters," November 1982, EPA #430/0-82-010 (pages 70-71). In addition, the discharger should consult "Ecological Impacts of Sewage Discharges on Coral Reef Communities," September 1983, EPA #430/9-83-010, for further information. The study shall be conducted within one year of the effective date of this permit and every two years thereafter.

J. VERIFICATION OF MODELING PREDICTIONS

Within three months after both dye studies have been completed, the permittee, cooperatively with Samoa Packing Co., shall utilize the results from the monitoring data and from the dye studies to verify the models used in the determination of the mixing zones (the 30-second dilution zone, the ZID, and the ZOM). A report summarizing renewed predictions of dilution rates and the size, location, and movement of the plume based on the calibrated models shall be submitted to the USEPA and ASEPA. Also, through the use of an appropriate model and one year's worth of ambient data, the permittee shall examine the effects of BOD₅ in the effluent on Dissolved Oxygen (DO) in the receiving water.

K. WASTEWATER TREATMENT SYSTEM EVALUATION

The permittee shall retain an independent consultant(s) to conduct a complete diagnostic evaluation of the wastewater treatment system. The purpose of the evaluation is to review

current plant operations and equipment and to identify possible modifications in order to decrease pollutant loads, specifically of nitrogen and phosphorus, to the harbor.

The evaluation shall identify all the components of the wastewater treatment system. Nitrogen, phosphorus, total suspended solids, oil and grease loadings from each waste stream of the Dissolved Air Flotation (DAF) influent (thaw-water, spray-cooling, plant-washdown) shall be determined. Methods for reducing the amount of wastewater and the pollutant loadings of the components of the DAF influent shall be examined.

The DAF equipment shall be reviewed to determine its effectiveness. The report should examine the working order of the equipment and the existing system controls. The report shall compare the design parameters of the DAF system with the average and maximum operating values for air-to-solids ratio (lb air:lb solids), solids loading (lb/ft²/hr), and hydraulic loading (gpm/ft²).

Current chemical treatment shall be analyzed to determine effective dosages. Jar and pilot DAF chemical coagulating testing shall be performed using at least three coagulants. Reduction in nitrogen and phosphorous, and total suspended solids shall be reported for each chemical tested and compared to current treatment.

In conclusion, the report shall list in order of importance all recommended improvements to the system, and estimate the cost of each improvement.

This study shall be performed and a report submitted to the ASEPA, and the EPA within one year of the effective date of this permit and again by the expiration date of this permit. The permittee shall submit for approval by ASEPA and EPA, within sixty days of completing the report, a schedule for implementing the recommended improvements. Should the permittee view some of the improvements economically infeasible or technically impossible, the report should substantiate those views.

If such a study has been performed during the year preceding the effective date of this permit, the permittee is not required to have the first study performed. The permittee must, however submit an implementation schedule within sixty days of the effective date of this permit. One year from the effective date of this permit, and annually thereafter, a report shall be submitted documenting the progress made in implementing these recommendations.

L. POLLUTION PREVENTION PROGRAM

1. Within six months of the effective date of this permit, the permittee shall develop and implement a Pollution Prevention Program. The purpose of the program is to evaluate and implement methods of reducing or eliminating

pollutants listed under section A of this permit from the outfall, stormwater drain(s), plant-site runoff, sludge disposal and fishing vessels. A component of this plan will be a water conservation program.

2. The permittee shall review all facility components or systems (including storage areas; in-plant transfer, process and handling areas; loading and unloading operations; and sludge and waste disposal areas) where these pollutants are generated, stored or handled to evaluate methods for reducing the release of these pollutants to the harbor. In performing such an evaluation, the permittee shall consider ways of preventing fish scraps, oil and grease, etc., from entering the wastewater streams and shall consider typical industry practices such as employee training, inspections and records, preventive maintenance, and good housekeeping. In addition, the permittee may consider structural measures (such as secondary containment devices) where appropriate.
3. The permittee shall retain an independent consultant(s) to determine the source of the high levels of metals (Cadmium, Chromium, Lead, Mercury, and Zinc) in the cannery's effluent, and shall examine methods to reduce the current levels. Such an analysis shall be submitted to the ASEPA and USEPA for approval within six months of the effective date of this permit.
4. The Pollution Prevention Program shall also evaluate ways of preventing fishing vessels from discharging engine oil into the harbor. Such a plan shall explore options such as accepting used oil for burning in the cannery's boilers or for recycling, issuing a multi-lingual statement to each fishing vessel outlining the regulations against illegal dumping, and establishing a company policy that would prohibit the canneries from purchasing tuna from any vessel found responsible for discharging oil.
5. The Pollution Prevention Program shall be documented in narrative form and shall include any necessary pilot plans, drawings or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the program and may be incorporated by reference. The Pollution Prevention plan shall be submitted to ASEPA and EPA within six months of the effective date of this permit and a copy shall be maintained at the facility and annual reports submitted documenting program progress.

M. DEFINITIONS

1. "Ambient conditions" means the existing conditions in the surrounding waters not influenced by the discharger's effluent.

2. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility whose operation is necessary to maintain compliance with the terms and conditions of this permit.
3. "Whole-effluent toxicity" is the aggregate toxic effect of an effluent measured directly with a "toxicity test".
4. "Composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of the discharge, whichever is shorter.

"Composite sample" means, for other than flow rate measurement,

- a. A combination of at least eight individual portions obtained at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling.

OR

- b. A combination of at least eight individual portions of equal volume obtained over a 24-hour period. The time interval will vary such that the volume of wastewater discharged between samplings remains constant.

The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

5. "Daily discharge" means:
 - a. For flow rate measurement, the average flow rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.
 - b. For pollutant measurements, the concentration or mass emission rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.
6. "Daily maximum" limit means the maximum acceptable "daily discharge". For pollutant measurements, unless otherwise specified, the results to be compared to the "daily maximum" limit are based on "composite samples."
7. "Duly authorized representative" is one whose:
 - a. Authorization is made in writing by a principal executive officer or ranking elected official;
 - b. Authorization specifies either an individual or a position having responsibility for the overall

operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

- c. Written authorization is submitted to the ASEPA and EPA. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements must be submitted to ASEPA and EPA prior to or together with any reports, information, or other applications to be signed by an authorized representative.
- 8. "Grab sample" is defined as any individual sample collected in a short period of time not exceeding 15 minutes. "Grab samples" shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with "daily maximum" limits.
 - 9. "Hazardous substance" means any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act.
 - 10. "Heavy metals" are, for the purposes of this permit, arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc.
 - 11. "Indirect discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.
 - 12. "Initial dilution" is the process which results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristics of most municipal wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

Numerically, initial dilution is expressed as the ratio of the volume of discharged effluent plus ambient water entrained during the process of initial dilution to the volume of discharged effluent.

- 13. "Mass emission rate" is obtained from the following

calculations for any calendar day:

$$\text{Mass emission rate (lb/day)} = 8.345/N \sum_{i=1}^N Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = 3.785/N \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of samples analyzed in any calendar day. 'Q_i' and 'C_i' are the flow rate (MGD) and the concentration (mg/L), respectively, which are associated with each of the 'N' grab samples which may be taken in any calendar day. If a composite sample is taken, 'C_i' is the concentration measured in the composite sample and 'Q_i' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste stream as follows:

$$\text{Daily concentration} = 1/Q_t \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of component waste streams. 'Q_i' and 'C_i' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Q_t' is the total flow rate of the combined waste streams.

14. "Monthly average" is the arithmetic mean of daily concentrations, or of daily "mass emission rates", over the specified monthly period:

$$\text{Average} = 1/N \sum_{i=1}^N X_i$$

in which 'N' is the number of days samples were analyzed during the period and 'X_i' is either the constituent concentration (mg/L) or mass emission rate (kg/day or lb/day) for each sampled day.

15. "100-year frequency flood" means a flood of unusually large magnitude and which is characterized by its infrequent occurrence.
16. "Open coastal waters" means marine waters bounded by 100 fathom (183 m; 600 ft) depth contour and the shoreline excluding bays named in section 24.0206(c)(2)-(4) of the American Samoa water quality standards.
17. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including the pumping facilities.

28. "Pesticides" are, for purposes of this permit, those six constituents referred to in 40 CFR 125.58(m) (demeton, guthion, malathion, mirex, methoxychlor, and parathion).
19. "Pollutant-free wastewater" means infiltration and in-flow, cooling waters, and condensates which are essentially free of pollutants.
20. "Priority pollutants" are those constituents referred to in 40 CFR 401.15 and listed in the EPA NPDES Application Form 2C, pp. V-3 through V-9.
21. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a "bypass" or "overflow." It does not mean economic loss by delays in production.
22. "Sludge" means the solid, semi-liquid suspension of solids, residues, screenings, grit, scum and precipitates separated from, or created in wastewater by the unit processes of a treatment system. It also includes, but is not limited to, all supernatant, filtrate, centrate, decantate, and thickener overflow/underflow in the solids handling parts of the wastewater treatment system.
23. "Toxic pollutant" means any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act or under 40 CFR 122, Appendix D. Violation of the maximum daily discharge limitations are subject to the 24-hour reporting requirement (section P.13.f).
24. "Toxicity test" is the means to determine the toxicity of a chemical or an effluent using living organisms. A toxicity test measures the degree of response of an exposed test organism to a specific chemical or effluent.
25. "Toxic unit chronic" is the reciprocal of the effluent dilution that causes no unacceptable effect on the test organisms by the end of the chronic exposure period.
26. "Upset" means any exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations in the permit because of factors beyond the reasonable control of the discharger. It does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation, or those problems the discharger should have foreseen.
27. "Waste", "waste discharge", "discharge of waste", and "discharge" are used interchangeably in this permit. The requirements of this permit are applicable to the entire volume of water, and the material therein, which is disposed of to marine waters.

28. "Weekly average" is the arithmetic mean of daily concentrations, or of daily mass emission rates, over the specified weekly period:

$$\text{Average} = \frac{1}{N} \sum_{i=1}^N X_i$$

in which 'N' is the number of days samples were analyzed during the period and 'Xi' is either the constituent concentration (mg/L) or "mass emission rate" (kg/day or lb/day) for each sampled day.

29. "Zone of initial dilution" (ZID) means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports, providing that the ZID may not be larger than allowed by mixing zone restrictions in applicable water quality standards [40 CFR 125.58(w)]. For purposes of designating monitoring stations, the region within a horizontal distance equal to a specified water depth (usually depth of outfall or average depth of diffuser) from any point of the diffuser or end of the outfall and the water column above and below that region, including the underlying seabed.
30. "Zone of mixing" (ZOM) means limited areas around outfalls and other facilities approved by ASEQC with the concurrence of EPA to allow for the initial dilution of waste discharges [American Samoa Water Quality Standards].

N. QUALITY ASSURANCE/QUALITY CONTROL

All waste material sampling procedures, analytical protocols, and quality assurance/quality control procedures shall be performed in accordance with guidelines specified by EPA. The following references shall be used by the permittee where appropriate:

1. EPA, 40 CFR 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act;
2. Tetra Tech, Inc. 1985. Summary of the U.S. EPA-approved methods and other guidance for 301(h) monitoring variables. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-693. Tetra Tech, Inc., Bellevue, WA; and
3. Tetra Tech, Inc. 1986. Quality assurance and quality control guidance for 301(h) monitoring programs. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-3968. Tetra Tech, Inc., Bellevue, WA.

O. REPORTING

Monitoring results obtained during the previous 3 months shall be summarized for each month and submitted quarterly on forms to be supplied by EPA, to the extent that the information reported may be entered on the forms. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this permit. Monitoring reports shall be postmarked no later than the 28th day of the month following the completed reporting period. The first report is due 4 months after the effective date of this permit. Signed copies of these and all other reports required herein shall be submitted to the EPA Regional Administrator and the Government of American Samoa at the following addresses:

Regional Administrator
Environmental Protection Agency
Region 9, Attn: Office of Pacific Island and
Native American Programs (E-4)
75 Hawthorne Street
San Francisco, CA 94105

Director
American Samoa Environmental Protection Agency
Office of the Governor
Pago Pago, American Samoa 96799

P. EPA REGION IX STANDARD CONDITIONS

See attachment.

EPA REGION IX STANDARD FEDERAL NPDES PERMIT CONDITIONS
(Updated as of May 10, 1990)

1. Duty to Reapply [40 CFR 122.21(d)]

The permittee shall submit a new application 180 days before the existing permit expires. 122.2(c)(2) POTW's with currently effective NPDES permits shall submit with the next application the sludge information listed at 40 CFR 501.15(a)(2).

2. Applications [40 CFR 122.22]

a. All permit applications shall be signed as follows:

1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
- ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

3) For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

b. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this Section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- 1) The authorization is made in writing by a person described in paragraph (a) of this section;
- 2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as

the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,

3) The written authorization is submitted to the Director.

c. Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

d. Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

3. Duty to comply [40 CFR 122.41(a)]

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

b. The Clean Water Act provides that:

- 1) Any person who causes a violation of any condition in this permit is subject to a civil penalty not to exceed \$25,000 per day of each violation. Any person who negligently causes a violation of any condition in this permit is subject to a fine off not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both for a first conviction. For a second conviction, such a person is subject to a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two years, or both. [Updated pursuant to the Water Quality Act of 1987]
- 2) Any person who knowingly causes violation of any condition of this permit is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than three years, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than \$100,000 per day of violation, or by imprisonment of ~~not~~ more than six years, or both. [Updated pursuant to the Water Quality Act of 1987]
- 3) Any person who knowingly causes a violation of any condition of this permit and, by so doing, knows at that time that he thereby places another in imminent danger of death or serious bodily injury shall be subject to a fine of not more than \$250,000, or imprisonment of not more than 15 years, or both. A person who is an organization and violates this provision shall be subject to a fine of not more than \$1,000,000 for a first conviction. For a second conviction under this provision, the maximum fine and imprisonment shall be doubled. [Updated pursuant to the Water Quality Act of 1987]

4. Need to halt or reduce activity not a defense [40 CFR 122.41(c)]

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

5. Duty to mitigate [40 CFR 122.41(d)]

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper operation and maintenance [40 CFR 122.41(e)]

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

7. Permit actions [40 CFR 122.41(f)]

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

8. Property rights [40 CFR 122.41(g)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Duty to provide information [40 CFR 122.41(h)]

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

10. Inspection and entry [40 CFR 122.41(i)]

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

11. Monitoring and records [40 CFR 122.41(j)]

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application, except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Director at any time.
- c. Records of monitoring information shall include:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The individual(s) who performed the sampling or measurements;
 - 3) The date(s) analyses were performed;
 - 4) The individual(s) who performed the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
- d. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, or in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in this permit.
- e. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than

\$20,000 per day of violation, or imprisonment for not more than four years, or both. [Updated pursuant to the Water Quality Act of 1987]

12. Signatory requirement [40 CFR 122.41(k)]

- a. All applications, reports, or information submitted to the Director shall be signed and certified. (See 40 CFR 122.22)
- b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than \$20,000 per day of violation, or imprisonment of not more than four years, or both. [Updated pursuant to the Water Quality Act of 1987]

13. Reporting requirements [40 CFR 122.41(l)]

- a. Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - 1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - 2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).
 - 3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

- c. Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act (CWA). (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory.)
- d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- 1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
 - 2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR, or sludge reporting form specified by the Director.
 - 3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
- e. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- f. Twenty-four hour reporting.
- 1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - 2) The following shall be included as information which must be reported within 24 hours under this paragraph.

- i) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(g).)
 - ii) Any upset which exceeds any effluent limitation in the permit.
 - iii) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See 40 CFR 122.44(g).)
- 3) The Director may waive the written report on a case-by case basis for reports under paragraph (6)(ii) of this section if the oral report has been received within 24 hours.

- g. Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (6) of this section.
- h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

14. Bypass [40 CFR 122.41(m)]

a. Definitions

- 1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- 2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

- b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (3) and (4) of this section.

c. Notice-

- 1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, of possible at least ten days before the date of the bypass.
- 2) Unanticipated bypass. If the permittee shall submit notice of an unanticipated bypass as required in paragraph (a)(6) of section 13) (24-hour notice).

d. Prohibition of bypass.

- 1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
 - i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - iii) The permittee submitted notices as required under paragraph (3) of this section.
- 2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (4)(i) of this section.

15. Upset [40 CFR 122.41(n)]

a. Definition.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (3) of this section are met. No

determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- 1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- 2) The permitted facility was at the time being properly operated; and
- 3) The permittee submitted notice of the upset as required in paragraph 13)(6)(ii)(B)(24-hour notice).
- 4) The permittee complied with any remedial measures required under 40 CFR 122.41(d).

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

16. Existing manufacturing, commercial, mining, and silvicultural dischargers [40 CFR 122.42(a)]

In addition to the reporting requirements under 40 CFR 122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - 1) One hundred micrograms per liter (100 ug/l);
 - 2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - 3) Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - 4) The level established by the Director in accordance with 40 CFR 122.44(f).

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- 1) Five hundred micrograms per liter (500 ug/l);
- 2) One milligram per liter (1 mg/l) for antimony;
- 3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7);
- 4) The level established by the Director in accordance with 40 CFR 122.44(f).

17. Publicly owned treatment works [40 CFR 122.42(b)]

This section applies only to publicly owned treatment works as defined at 40 CFR 122.2.

a. All POTW's must provide adequate notice to the Director of the following:

- 1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; and
- 2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- 3) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

b. [The following condition has been established by Region 9 to enforce applicable requirements of the Resource Conservation and Recovery Act] Publicly owned treatment works may not receive hazardous waste by truck, rail, or dedicated pipe except as provided under 40 CFR 270. Hazardous wastes are defined at 40 CFR 261 and include any mixture containing any waste listed under 40 CFR 261.31 - 261.33. The Domestic Sewage Exclusion (40 CFR 261.4) applies only to wastes mixed with domestic sewage in a sewer leading to a publicly owned treatment works and not to mixtures of hazardous wastes and sewage or septage delivered to the treatment plant by truck.

18. Reopener clause [40 CFR 122.44(c)]

This permit shall be modified or revoked and reissued to incorporate any applicable effluent standard or limitation or standard for sewage sludge use or disposal under sections 301(b)(2)(C), and (D), 304(b)(2), 307(a)(2) and 405(d) which is promulgated or approved after the permit is issued if that effluent or sludge standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant or sludge use or disposal practice not limited in the permit.

19. Privately owned treatment works

[The following conditions were established by Region 9 to enforce applicable requirements of the Resource Conservation and Recovery Act and 40 CFR 122.44(m)]

This section applies only to privately owned treatment works as defined at 40 CFR 122.2.

- a. Materials authorized to be disposed of into the privately owned treatment works and collection system are typical domestic sewage. Unauthorized materials are hazardous waste (as defined at 40 CFR Part 261), motor oil, gasoline, paints, varnishes, solvents, pesticides, fertilizers, industrial wastes, or other materials not generally associated with toilet flushing or personal hygiene, laundry, or food preparation, unless specifically listed under "Authorized Non-domestic Sewer Dischargers" elsewhere in this permit.
- b. It is the permittee's responsibility to inform users of the privately owned treatment works and collection system of the prohibition against unauthorized materials and to ensure compliance with the prohibition. The permittee must have the authority and capability to sample all discharges to the collection system, including any from septic haulers or other unsewered dischargers, and shall take and analyze such samples for conventional, toxic, or hazardous pollutants when instructed by the permitting authority or by an EPA, State or Tribal inspector. The permittee must provide adequate security to prevent unauthorized discharges to the collection system.
- c. Should a user of the privately owned treatment works desire authorization to discharge non-domestic wastes, the permittee shall submit a request for permit modification and an application, pursuant to 40 CFR 122.44(m), describing the proposed discharge. The application shall, to the extent possible, be submitted using EPA Forms 1 and 2C, unless another format is requested by the permitting authority. If the privately owned treatment works or collection system user is different from the permittee, and the permittee agrees to allow the non-domestic discharge, the user shall submit the application and the

permittee shall submit the permit modification request. The application and request for modification shall be submitted at least 6 months before authorization to discharge non-domestic wastes to the privately owned treatment works or collection system is desired.

20. Transfers by modification [40 CFR 122.61(a)]

Except as provided in section 21), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under 40 CFR 122.62(b)(2)), or a minor modification made (under 40 CFR 122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under CWA.

21. Automatic transfers [40 CFR 122.61(b)]

As an alternative to transfers under section 20), any NPDES permit may be automatically transferred to a new permittee if:

- a. The current permittee notifies the Director at least 30 days in advance of the proposed transfer date in paragraph (2) of this section;
- b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
- c. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in the paragraph (2) of this section.

22. Minor modification of permits [40 CFR 122.63]

Upon the consent of the permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following the procedures of 40 CFR Part 124. Any permit modification not processed as a minor modification under this section must be made for cause and with 40 CFR Part 124 draft permit and public notice as required in 40 CFR 122.62. Minor modifications may only:

- a. Correct typographical errors;
- b. Require more frequent monitoring or reporting by the permittee;

- c. Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement; or
- d. Allow for a change in ownership or operational control of a facility where the Director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Director.
- e. Change the construction schedule for a discharger which is a new source. No such change shall affect a discharger's obligation prior to discharge under 40 CFR 122.29.
- f. Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with the permit limits.
- g. When the permit becomes final and effective on or after March 9, 1982, conform to changes respecting 40 CFR 122.41(e), (l), (m)(4)(i)(B), (n)(3)(i), and 122.42(a) issued September 26, 1984.
- h. Incorporate conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 as enforceable conditions of the POTW's permit.

23. Termination of permits [40 CFR 122.64]

The following are causes for terminating a permit during its term, or for denying a permit renewal application:

- a. Noncompliance by the permittee with any condition of the permit;
- b. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;
- c. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
- d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit (for example, plant closure or termination of discharge by connection to a POTW).

24. Availability of Reports [Pursuant to Clean Water Act Section 308]

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Regional Administrator. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

25. Removed Substances [Pursuant to Clean Water Act Section 301]

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

26. Severability [Pursuant to Clean Water Act Section 512]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and remainder of this permit, shall not be affected thereby.

27. Civil and Criminal Liability [Pursuant to Clean Water Act Section 309]

Except as provided in permit conditions on "Bypass" (Section 14) and "Upset" (Section 15), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

28. Oil and Hazardous Substance Liability [Pursuant to Clean Water Act Section 311]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

29. State or Tribal Law [Pursuant to Clean Water Act Section 510]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by Section 510 of the Clean Water Act.

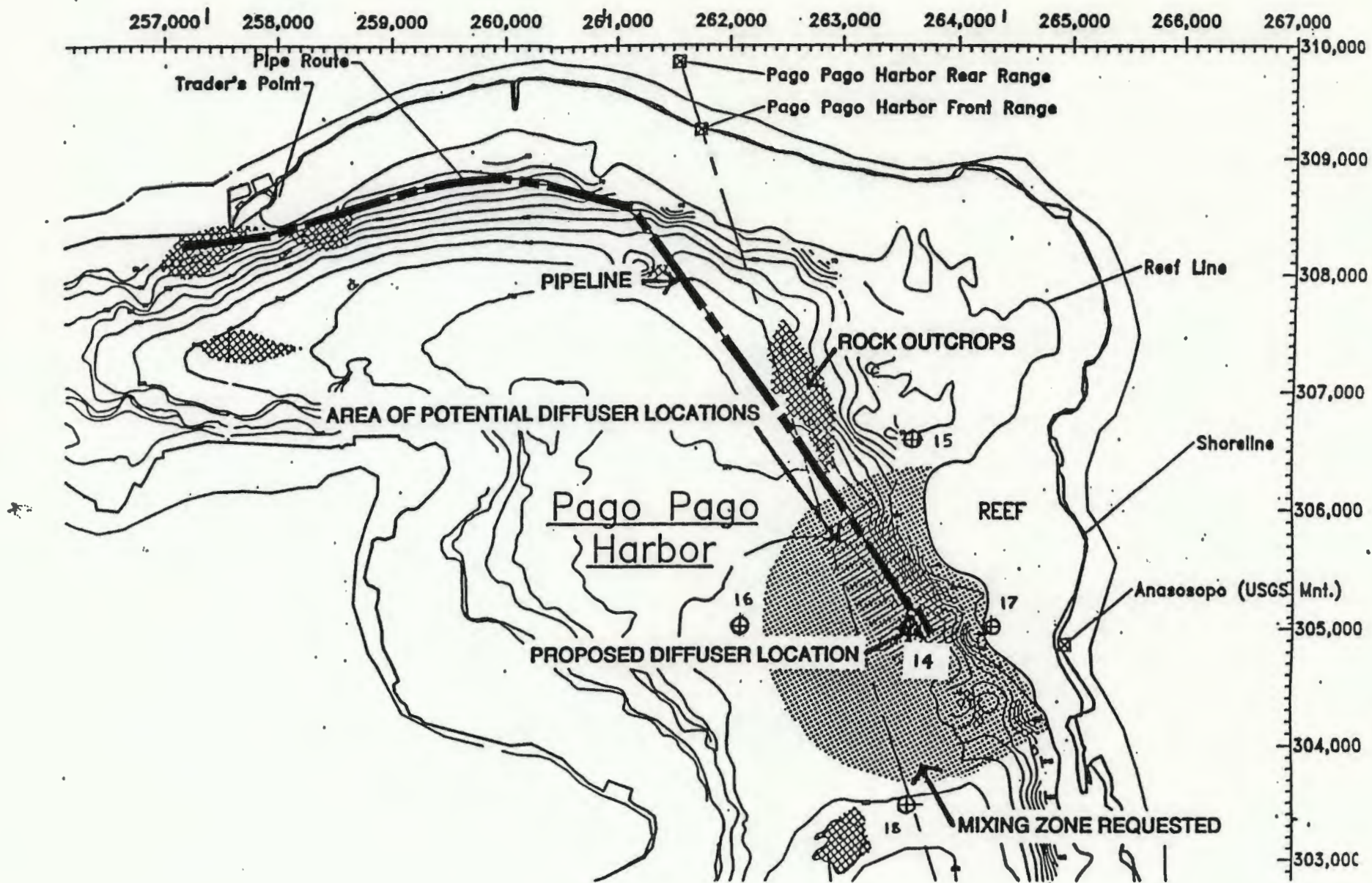
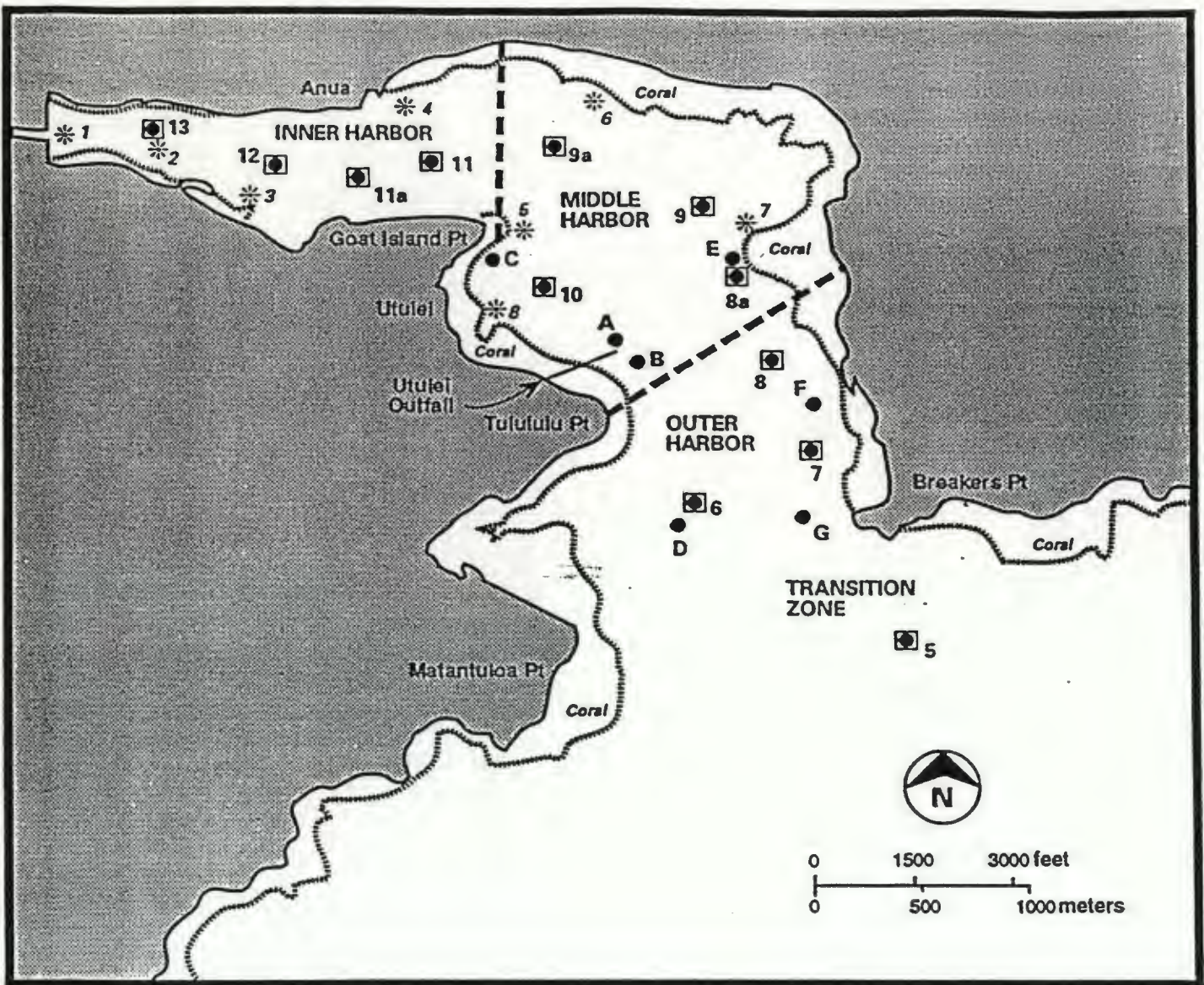


FIGURE 1. NEW MONITORING STATIONS
IN PAGO PAGO HARBOR (14-18)



LEGEND

- ◻ ASG Sampling Station
- Utulei WWTP Station
- * CH2M HILL Field Measurement Station (1/19/91)

FIGURE 2. LOCATION OF WATER QUALITY STATIONS IN PAGO PAGO HARBOR

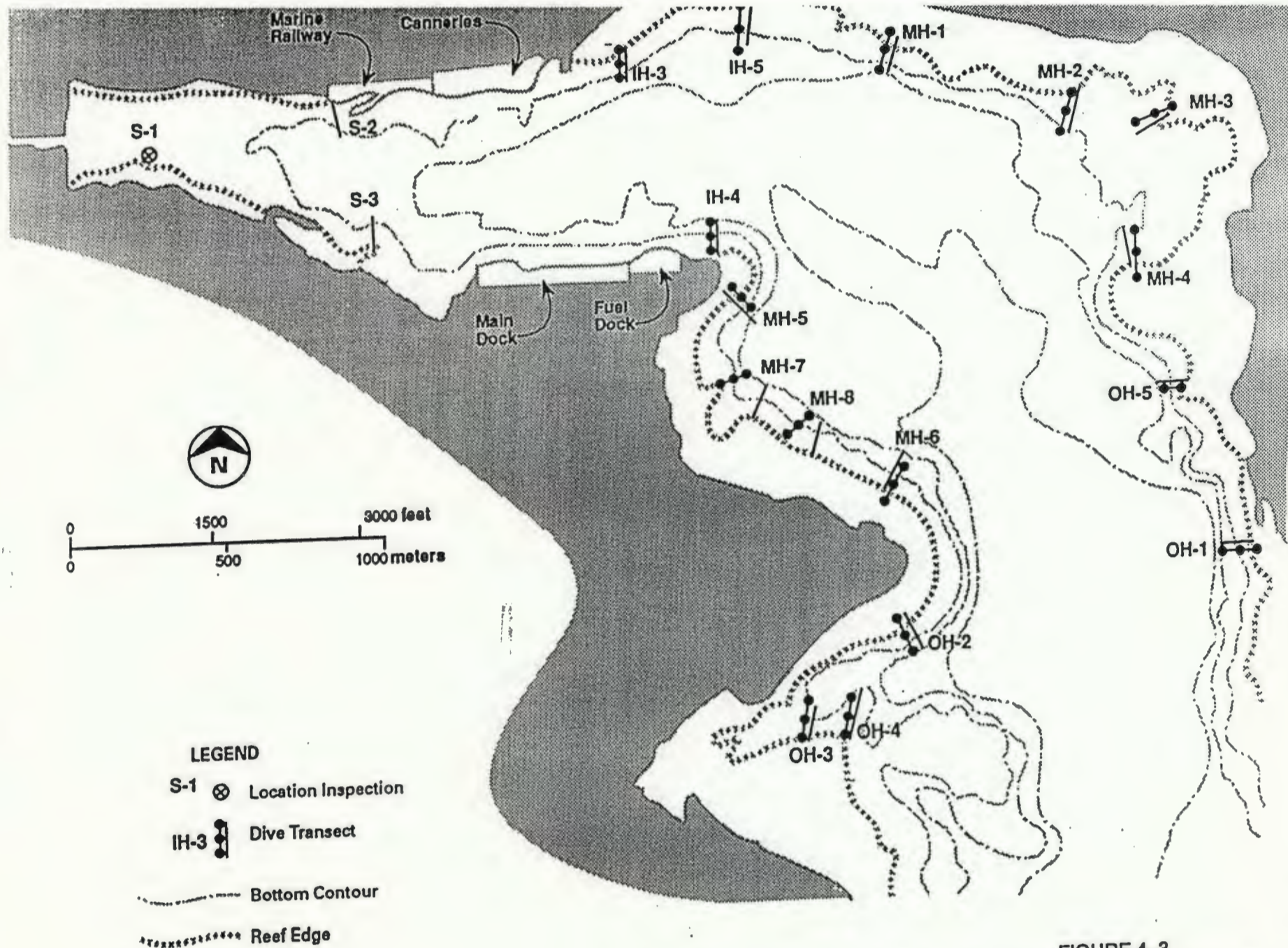


FIGURE 4-3
Coral Reef Transects from 1991 "Use Attainability Analysis", CH2M H

STATEMENT OF BASIS

Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago, Tutuila
American Samoa 96799

I. Description of Facility

The applicant operates a tuna cannery located on Tutuila Island, American Samoa. Process discharges from the cannery enter Pago Pago Harbor at 14 deg. 17 min. 01 sec. South latitude and 170 deg. 40 min. 02 sec. West longitude. The cannery receives whole tuna which is processed into canned tuna and dried fish meal. Waste streams from this operation consist mainly of fish waste, fresh water, and sea water which are treated by Dissolved Air Floatation process. The DAF sludge and the high strength waste (pre-cooker condensate, press juice, fish meal plant wash water, etc.) are barged to sea for disposal. Approximately 402 tons of fish are processed per day. The resulting discharge to Pago Pago Harbor has been a maximum monthly average of 1.68 MGD and a long-term average of 1.40 MGD.

Section 24.0206 (c)(2) of the American Samoa water quality standards states that "Pago Pago Harbor has been designated by the American Samoa Government to be developed into a transshipment center for the South Pacific. Recognizing its unique position as an embayment where water quality has been degraded from the natural condition, the EQC has established a separate set of standards for Pago Pago Harbor." A triennial review of American Samoa water quality standards was begun in 1987 and the results of that review were adopted in 1990. Section 24.0207 (c) specifies the standards that apply specifically to Pago Pago Harbor.

Administrative orders were issued by EPA in June 1990 to both Star-Kist Samoa and Samoa Packing Company for violations of water quality-based effluent limits of their respective 1987 NPDES permits. The orders established interim effluent limits and a schedule for compliance with water quality-based effluent limits by March 7, 1992. Concurrently, the American Samoa Government (ASG) also issued consent decrees mirroring EPA's compliance orders, with stipulated penalties for failure to meet interim effluent limits and compliance schedule deadlines.

Both canneries were required by the orders and consent decrees to segregate high strength waste streams and dispose of these wastes and DAF sludge at a designated ocean disposal site beginning in August 1990. Feasibility studies were also required to be conducted by both canneries for alternatives by which they could achieve compliance with their NPDES permit effluent limits and ASG water quality standards for their remaining discharge into the harbor. The canneries chose to construct a 7,000-foot joint outfall which extends into the outer harbor. The new outfall will be jointly operated by both canneries for discharge of their effluent.

The two canneries also applied for a mixing zone consistent with the requirements set forth in Section 24.0208 of the American Samoa Water Quality Standards. The mixing zone requested extends approximately 1300 feet in radius from the discharge point. The mixing zone was approved by American Samoa Environmental Quality Commission (ASEQC) on November 27, 1991.

Discharge in compliance with this NPDES permit should ensure achievement of all applicable water quality standards. These standards are designed to prevent degradation of water quality. Therefore, compliance with this NPDES permit should prevent any "unreasonable degradation" of the marine environment, and in accordance with section 403(c) of the Clean Water Act, an NPDES permit may be issued.

II. Effluent Limitations

Discharges from fish processing facilities are not subject to any effective EPA effluent limitations guidelines. Therefore, permit requirements were established using best professional judgment and specific water quality standards in order to ensure protection of the beneficial uses of the receiving waters.

A. pH

The Best Practicable Technology (BPT) limit for pH is "within the range of 6.0 to 9.0." However, water quality standards listed under 24.0207 (c)(7) state: "The pH range shall be 6.5 to 8.6 and be within 0.2 pH units of that which would occur naturally." Because the water quality standards are more stringent, and because the mixing zone application states that "other water quality standards (beside total nitrogen, total phosphorus and temperature) will be met within the zone of mixing (e.g. pH, fecal coliform)..." the more stringent standard will apply as the limit.

B. Temperature

Water quality standards specify a temperature limit of 85°

F which is to apply to water at the edge of the mixing zone. It is the best professional judgement of this permit writer, that the water will cool at least 10° from the point it enters the discharge pipe to the edge of the mixing zone. Furthermore, modeling studies were performed by the canneries' consultant assuming the effluent was 85° F and 90° F with no significant difference in dilution rates. Therefore, the permit limit contains a 90° F monthly average and a 95° F daily maximum.

C. Oil and Grease

40 CFR 408.140 sets the BPT limit for oil and grease at a daily maximum of 2.1 lbs/1000 lbs of seafood processed and a monthly average of 0.84 lbs/1000 lbs of seafood processed. Limits for oil and grease were calculated by multiplying the BPT limits stated above, by the average daily production level of 402 tons seafood processed/day. Thus the daily maximum for oil and grease is set at 1,688 lbs/day and the monthly average at 675 lbs/day.

D. Total Suspended Solids

Limits were set for Total Suspended Solids (TSS) using the same rationale detailed in Section C (Oil and Grease). 40 CFR 408.140 sets the BPT limit for TSS at a daily maximum of 8.3 lbs/1000 lbs of seafood processed and a monthly average of 3.3 lbs/1000 lbs of seafood processed. Limits for TSS were calculated by multiplying the BPT limits stated above, by the average daily production level of 402 tons seafood processed/day. Thus the daily maximum for TSS is set at 6,673 lbs/day and the monthly average at 2,653 lbs/day.

E. Total Nitrogen

The mixing zone analysis performed by the canneries' consultant, CH2MHill, indicates that the mixing zone can assimilate 60,000 lbs. of total nitrogen per month. Assuming a 30-day month, an average of 2,000 lbs. of total nitrogen/day can be discharged between the two canneries. The two canneries have agreed between themselves to each assume a portion of this average. Star-Kist will assume 1,200 lbs/day as a monthly average limit for total nitrogen.

The canneries are required to sample twice/week for total nitrogen on production days. Averaging only these samples will yield a number that assumes weekend values are equal to production days. The canneries have claimed that they discharge significantly less nutrients on the weekends. Therefore, should the permittee wish to monitor the effluent on a non-production day(s), the permittee must monitor for the six consecutive days following the non-

production day on which the first sample was taken. The average of all samples taken during that month will determine compliance with the "monthly average". This requirement will ensure that the monitoring is representative of the discharge, and if the canneries are in compliance with their monthly average limits, the mixing zone's capacity of 60,000 lbs/month of total nitrogen will not be exceeded.

StarKist's daily maximum effluent limit for total nitrogen was 2,440 lbs/day as stated in EPA's letter of October 30, 1991, amending its Administrative Order. Samoa Packing Company's daily maximum limit was 1,595 lbs/day, as set in EPA's Administrative Order of June 18, 1990. These limits were initially to be retained in the new permits. However, the canneries expressed a desire to allocate the total of 4,035 lbs/day between themselves. Since the combined number is the same, the canneries were permitted to do so. StarKist agreed to accept a limit of 2,100 lbs/day, and Samoa Packing Company agreed to a limit of 1,935 lbs/day.

The canneries have claimed that total nitrogen and total phosphorus levels in the effluent have no significant correlation to production levels, and their monitoring data supports such a statement (See Appendix B, "Technical Memorandum for Site-Specific Zone of Mixing Determination for Joint Cannery Outfall Project", CH2M Hill, August 26, 1991). Therefore these effluents limits for total nitrogen and total phosphorus do not limit the canneries' production levels.

F. Total Phosphorus

Limits were set for total phosphorus using the same rationale as that detailed in Section E (Total Nitrogen). The total assimilative capacity of the zone of mixing was calculated by CH2MHill to be a monthly average of 400 lbs. of total phosphorus/day. This total was divided between the two canneries and StarKist has agreed to assume a monthly average limit of 192 lbs. of total phosphorus/day.

The combined total of daily maximum limits set in the Administrative Orders was 580 lbs. of total phosphorus/day and will be retained in the current permits. The canneries agreed to reapportion their share of the total. StarKist will assume a daily maximum of 309 lbs. of total phosphorus/day.

G. Toxicity

Section 24.0208 (b)(5) of the American Samoa water quality standards states, "Those water quality parameters which are subject to zone of mixing are chlorophyll a, light

penetration depth, nutrients, pH, temperature, turbidity, and fecal coliform. Determination of effluent limits for toxic substances must comply with 24.0207 (a) (8)(A)-(E) and 24.0207 (a)(9)..."

Section 24.0207 (a)(8)(A) states, "All effluents containing materials attributable to the activities of man shall be considered harmful and not permissible until acceptable bioassay tests have shown otherwise."

Section 24.0207 (a)(8)(C) states, "The survival of test organisms in discharge waters shall not be less than that for water from the same water body in areas unaffected by sewage, industrial wastes, or other activities of man..."

In its permit application, Star-Kist Samoa reported that "No toxic pollutants or hazardous substances present in discharge from existing outfall 001 or from proposed joint cannery outfall." However, the reported level of ammonia in the effluent as indicated in the permit application greatly exceeds national criteria for acute toxicity in marine waters at a pH above 6.7. The average pH of the outer harbor is 8.5. Also, reported levels of zinc and lead exceed the acute criteria, and mercury, cadmium and chromium exceed chronic criteria. Numerical limitations and/or monitoring requirements have been placed in this permit on all the known toxic constituents of the effluent. However, since the degree of toxicity of the whole effluent remains unknown, a monitoring requirement for chronic toxicity has been included in this permit.

The water quality standards state at Section 24.0207 (a)(8)(C), "As a minimum, compliance with the standard as stated in the previous sentence shall be evaluated with a 96-hour bioassay or short-term method for estimating chronic toxicity."

The permittee is required to conduct a semi-annual 96-hr static renewal acute bioassays on composite effluent samples using the white shrimp, Penaeus vannamei postlarvae. The white shrimp is a warm-water species that is currently being used in acute bioassays performed in labs in Hawaii.

The permittee is also required to conduct a priority pollutant scan yearly in conjunction with the bioassay.

H. Ammonia

The canneries have requested that they be exempt from the acute toxicity requirement within a mixing zone. The ASEQC approved this request. Little technical guidance exists, however, to define a mixing zone in marine waters that prevents lethality to passing organisms. The

technical support document for the canneries' zone of mixing application cites a few alternatives, but none seems appropriate to this situation.

CH2MHill proposed to use an 80:1 dilution. This dilution, according to their modeling, occurs 30 seconds after the effluent leaves the pipe. The area associated with an 80:1 dilution is approximately 12 meters. They claim that such a dilution will ensure no lethality to passing organisms.

EPA National Water Quality Criteria for un-ionized ammonia is 0.233 mg/l for marine waters. This value is the Criterion Maximum Concentration (CMC). Multiplying this 0.233 by 80 yields 18.64 mg/l. Referencing the manual "Tables of the fraction of Ammonia in the Undissociated form... for pH 6 to 9, temperature 0-30°C, TDS 0-300 mg/l and salinity 5-35 g/kg," by H.P. Skarheim of the University of California, Berkeley, College of Engineering, and using a pH value of 8.5, temperature of 29 °C, and salinity 35 g/kg (all characteristics of harbor waters), the un-ionized fraction of ammonia is 14 percent. Therefore the ammonia limit for the canneries is established at 133 mg/l.

I. Metals

Significant initial dilution should ensure no toxicity from metals within the zone of mixing. However, because metal readings in Pago Pago Harbor have historically been high, the canneries shall continue to monitor annually for cadmium, chromium, lead, mercury, and zinc. Under the Pollution Prevention Program, the canneries are also required to conduct a study in order to determine the source of the metals in the effluent and to examine ways of reducing those metals.

J. Total Residual Chlorine (TRC)

Section 24.0207(a)(12) states that total residual chlorine in discharge waters shall not exceed 20 ug/l. Table 3 in the application for a zone of mixing indicates that the canneries are able to meet the TRC standard at the end of the pipe. However, since the effluent has never been tested for TRC in support of such a statement, and since the canneries do chlorinate their process water, there is reasonable potential to believe the effluent may exceed the TRC standard. A limit and monitoring requirement has therefore been included in this permit.

Because the effluent has never been tested, the permit limit of 20 ug/l will not be effective until one year from the effective date of this permit. This will allow the permittee time to modify operations or install

dechlorination facilities if they are unable to meet the current limit.

K. Pago Pago Harbor Monitoring Program

Because the discharge point has been moved to a less degraded portion of the harbor, a monitoring program has been designed to assess the environmental impacts of the canneries' discharge on the entire harbor, and to ensure compliance with the water quality standards. Compliance with water quality standards for chlorophyll a, light penetration depth, and visible floating materials is to be determined throughout the mixing zone (at monitoring stations 8, 8a, 14-18). Compliance with turbidity, dissolved oxygen is to be determined outside the Zone of Initial Dilution (ZID) (at monitoring stations 8, 8a, 15-18). Compliance with the Total Phosphorus and Total Nitrogen and Temperature is to be determined outside the Zone of Mixing (ZOM) (at monitoring stations 15-18). The constituents of the program are as follows:

1. Quantitative Data

Temperature, pH, dissolved oxygen, total suspended solids, light penetration, turbidity, salinity, chlorophyll a, total nitrogen, total phosphorus, and total ammonia are all measured to ensure compliance with numerical limits of the receiving water.

2. Dye or Tracer Studies

Dye or tracer studies should provide useful information for better understanding the fate of the plume, which, according to CH2MHill's modeling, should remain submerged below 60 feet. The plan for conducting these studies and reporting the information shall be submitted by the canneries to the ASEPA and EPA for approval before the studies are performed.

3. Model Verification

The permittee is required to verify the models used to predict the mixing zones using results of the dye studies, effluent monitoring data, and ambient water quality data.

4. Eutrophication Study

Eutrophication of the harbor is of great concern because of the extremely high amounts of nutrients in the effluent. The study proposed shall examine algal-nutrient relationships of the harbor.

5. Sediment Monitoring

Sediment monitoring is conducted to determine the character of the sediments in relation to long-term high nutrient discharge by the canneries in the harbor and if harbor recovery will be affected by resuspension of the nutrients.

6. Coral Reef Survey

A coral reef marks one edge of the mixing zone. Because of its close proximity to the outfall, there may be effects on the local coral community. Possible effects should be analyzed through a survey that utilizes the coral reef survey performed in the 1991 Use Attainability Analysis as baseline data. The survey should be performed once after a year from the effective date of the permit and every two years thereafter. Should the survey reveal significant degradation of the coral community, subsequent analysis may be required in order to determine more accurately the causes of the degradation.

L. Wastewater Treatment System Evaluation

The permittee should be continuously seeking ways to improve the quality of its effluent. In order to foster that search, the permit includes a requirement to hire an independent consultant to examine the plant and provide a report on possible improvements. The permittee is then required to implement those improvements unless it can be shown, to the satisfaction of ASEPA and EPA, that the recommendations are economically infeasible or technically impossible.

The guidance in the permit for conducting this evaluation was derived from a study performed by CH2MHill on Samoa Packing Company's wastewater treatment system in June, 1991.

M. Pollution Prevention Program

Often the most significant way to reduce the amount of pollutants in the effluent is to stop them at the source. In developing a Pollution Prevention Program, the permittee must examine ways to ensure that a minimum amount of pollutants are entering the harbor as well as a minimum amount of wastewater. The pollution prevention program shall also examine ways to reduce the amount of oil illegally dumped in the harbor by tuna vessels. Finally, it shall include an analyses on the high metal concentrations in the effluent to determine the source(s) and ways to reduce current levels.

21 FEB 1992

Norman Wei
Senior Manager
Environmental Engineering
Star-Kist Seafood Company
180 East Ocean Blvd.
Long Beach, CA 90802

Re: Transmittal of the Preliminary Draft NPDES Permit for the
Joint Cannery Outfall

Dear Mr. Wei:

Enclosed please find a copy of Star-Kist Samoa's preliminary draft NPDES permit for discharge from the new joint cannery outfall. As previously discussed, this copy is being made available to you as a courtesy, prior to the official 30-day public notice and comment period. We expect to public notice the final draft permit by March 9 so we would appreciate receiving any comments you may have on this preliminary draft by February 28. Comments should be addressed to:

Doug Liden, Environmental Engineer
Permits Section (W-5-1)
Water Management Division
USEPA Region 9
75 Hawthorne St.
San Francisco, CA 94105

Sincerely,

for Pat Young

Norman L. Lovelace
Chief, Office of Pacific Island and
Native American Programs (E-4)

Enclosure

cc: Pati Faiai, ASEPA
Steve Costa, CH2MHill

E-4

myung

2/20/92

Norman Wei
Senior Manager
Environmental Engineering
Star-Kist Seafood Company
180 East Ocean Blvd.
Long Beach, CA 90802

Re: Transmittal of the Preliminary
Joint Cannery Outfall

Dear Mr. Wei:

Enclosed please find a copy
draft NPDES permit for discha
outfall. As previously discu
available to you as a courtesy, f
notice and comment period. We
draft permit by March 9 so we
comments you may have on this
Comments should be addressed to:

Doug Liden, Environmer
Permits Section (W-5-1
Water Management Divis
USEPA Region 9
75 Hawthorne St.
San Francisco, CA 94

Si

for No
Ch

Enclosure

cc: Pati Faiai, ASEPA
Steve Costa, CH2MHill

E-4
myung
2/20/92

Pat



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, Ca. 94105-3901

21 FEB 1992

Norman Wei
Senior Manager
Environmental Engineering
Star-Kist Seafood Company
180 East Ocean Blvd.
Long Beach, CA 90802

Re: Transmittal of the Preliminary Draft NPDES Permit for the
Joint Cannery Outfall

Dear Mr. Wei:

Enclosed please find a copy of Star-Kist Samoa's preliminary draft NPDES permit for discharge from the new joint cannery outfall. As previously discussed, this copy is being made available to you as a courtesy, prior to the official 30-day public notice and comment period. We expect to public notice the final draft permit by March 9 so we would appreciate receiving any comments you may have on this preliminary draft by February 28. Comments should be addressed to:

Doug Liden, Environmental Engineer
Permits Section (W-5-1)
Water Management Division
USEPA Region 9
75 Hawthorne St.
San Francisco, CA 94105

Sincerely,

for Pat Young

Norman L. Lovelace
Chief, Office of Pacific Island and
Native American Programs (E-4)

Enclosure

cc: Pati Faiai, ASEPA
Steve Costa, CH2MHill

DRAFT

Permit No. AS0000019

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"),

Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago, Tutuila
American Samoa 96799

is authorized to discharge tuna processing wastewater from the cannery located at Pago Pago, American Samoa from outfall Discharge Serial No. 001:

Latitude: 14 deg. 17 min. 01 sec. S
Longitude: 170 deg. 40 min. 02 sec. W

to receiving waters named: Pago Pago Harbor in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Sections A through G hereof.

This permit shall become effective on _____.

This permit and the authorization to discharge shall expire at midnight, _____.

Signed this _____ day of _____.

For the Regional Administrator

Harry Seraydarian
Director
Water Management Division

DRAFT**A. EFFLUENT LIMITS AND MONITORING REQUIREMENTS**

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall 001.

The effluent shall be sampled prior to its comingling with effluent from the other can.

Such discharges shall be limited and monitored by the permittee as specified below:⁽¹⁾

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|-----------------------------------|-----------------------|---------------------|-------------------------|---------------------|
| | 30-DAY AVG. | DAILY MAX. | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW (MGD) | -- | 2.9 | CONTINUOUS | RECORDER |
| BIOCHEMICAL OXYGEN DEMAND (5-DAY) | (6) | (6) | TWICE/MONTH | COMPOSITE |
| SUSPENDED SOLIDS (lbs/day) | 2653 | 6673 | TWICE/WEEK | COMPOSITE |
| OIL AND GREASE (lbs/day) | 675 | 1688 | TWICE/WEEK | GRAB ⁽²⁾ |
| TOTAL PHOSPHORUS (lbs/day) | 192 | 309 | (3) | COMPOSITE |
| TOTAL NITROGEN (lbs/day) | 1200 | 2100 | (3) | COMPOSITE |
| CHRONIC TOXICITY | -- | (4) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL AMMONIA (mg/l) | -- | 133 | ONCE/WEEK | COMPOSITE |
| TEMPERATURE (°F) | 90 | 95 | CONTINUOUS | CONTINUOUS |
| TOTAL RESIDUAL CHLORINE (mg/l) | -- | 0.02 ⁽⁵⁾ | ONCE/WEEK | GRAB |
| TOTAL CADMIUM (mg/l) | (6) | (6) | ONCE/6 MONTHS | COMPOSITE |
| TOTAL CHROMIUM (mg/l) | " | " | " | " |
| TOTAL LEAD (mg/l) | " | " | " | " |
| TOTAL MERCURY (mg/l) | " | " | " | " |
| TOTAL ZINC (mg/l) | " | " | " | " |
| pH | -- | (7) | CONTINUOUS | CONTINUOUS |

NOTES:

- (1) Where discharge monitoring data is reported as "below detection limit", both the detection limit obtained and the analytical method used shall be included on the monthly discharge monitoring report (DMR).
- (2) Each oil and grease sample shall consist of four individual grab samples ("sub-samples") which shall be taken at even intervals during each production period in which samples are taken. Each sub-sample shall be separately analyzed and the mean value of the four sub-samples, shall be reported for daily maximum and monthly average.
- (3) Permittee is required to sample twice/week on production days. Should the permittee wish to monitor the effluent on a non-production day(s), the permittee must monitor for the six consecutive days following the non-production day on which the first sample was taken. The average of all samples taken during that month will determine compliance with the "monthly average".
- (4) See Section C "Toxicity" for monitoring requirements.
- (5) Analytical results for total residual chlorine below 0.05 mg/l may be reported as "Not Quantifiable." This permit may be modified to change this level of quantification if more information becomes available.
- (6) No limit set at this time. Monitoring and reporting only.
- (7) The pH is limited between 6.5 and 8.6 standard units.

B. DISCHARGE SPECIFICATIONS

Throughout the receiving water, and therefore within the zone of initial dilution (ZID), the discharge shall not:

1. Lower the dissolved oxygen concentration to less than 5.0 mg/L; or 70% saturation;
2. Cause chlorophyll levels to exceed 1.0 ug/l;
3. cause the turbidity to exceed 0.75 nephelometric turbidity units;
4. Cause the light penetration depth to be less than 65 feet;
5. Produce objectionable color, odor, or taste, either of itself or in combinations, or in the biota;
6. Produce visible floating materials, grease, oil, scum, foam, and other floating material;
7. Contain materials that will produce visible turbidity or

settle to form objectionable deposits; and,

8. Cause toxicity to aquatic life or produce undesirable aquatic life.

Throughout the receiving water, with exception to the zone of mixing (ZOM), the discharge shall not:

1. Cause the temperature of the receiving water to deviate more than 1.5 degrees Fahrenheit from conditions that would occur naturally;
2. Cause the level of total nitrogen to exceed 200 ug/l; and,
3. Cause the level of total phosphorous to exceed 30 ug/l.

Compliance with the above limitations shall be determined by the monitoring program specified below.

B. PROTECTED AND PROHIBITED USES

1. The protected uses of Pago Pago Harbor are as follows:

- a. Recreational and subsistence fishing;
- b. Boat-launching ramps and designated mooring areas;
- c. Subsistence food gathering, e.g. shellfish harvesting;
- d. Aesthetic enjoyment;
- e. Whole and limited body-contact recreation, e.g. swimming, snorkeling, surfing and scuba diving.
- f. Support and propagation of marine life;
- g. Industrial water supply;
- h. Mari-culture development;
- i. Normal harbor activities; e.g. ship movements, docking, loading and unloading, marine railways and floating drydocks; and
- j. Scientific investigation.

2. Prohibited uses include but are not limited to:

- a. Dumping or discharge of solid waste;
- b. Animal pens over or adjacent to any shoreline;
- c. Dredging and filling activities, except when permitted by the American Samoa Environmental Quality Commission (ASEQC) in accordance with the Environmental Quality Act (Title 24, American Samoa Code);
- d. and radioactive waste discharges; and
- e. Discharge of oil sludge, oil refuse, fuel oil, or bilge water, or any other waste water from any vessel or unpermitted shoreside facility.

C. TOXICITY

1. Proposed Effluent Biomonitoring

Beginning 90 days after the effective date of this

permit, the permittee shall conduct, or have a contract laboratory conduct, semi-annual static or flow-through chronic bioassays on composite effluent samples according to the methods described in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. (Second Edition EPA/600/4-91/003) and Adaptation of the Sperm/Fertilization Bioassay Protocol to Hawaiian Sea Urchin Species (P.A. Dinnel, June 1988). Tests shall be conducted using a 0.3 dilution series from 100% effluent to 1.23% effluent.

These tests shall be conducted using a tropical sea urchin species, following the methods identified above.

Should the permittee be unable to perform the tests due to unacceptable control performances, the permittee shall notify EPA and upon concurrence by the American Samoa Environmental Protection Agency (ASEPA) and EPA, shall so note on its monitoring reports.

Should the permittee find it overly difficult to obtain sea urchin gametes in spawning condition during specific periods of the year, the permittee shall detail its efforts to EPA and, upon concurrence by ASEPA and EPA with this finding, shall record this fact in its monitoring reports. Control performance must be determined to be unacceptable in three consecutive attempts to conduct the test in any individual month for the permittee to be considered unable to conduct the tests.

If, after one year, the permittee demonstrates that a chronic test cannot be performed reliably during certain periods of the year, the permittee may, during those periods, substitute an acute test. Such a substitution may only be made upon approval by ASEPA and EPA, following review of the chronic test results obtained during the previous year. ASEPA and EPA may also approve alternate acute toxicity discharge limitations using an acute-chronic ratio based on toxicity test information specific to the permittee's discharge.

Test results for each species used will be reported on the permittee's Discharge Monitoring Reports. Results shall be reported as percent survival.

2. Toxicity Reopener

Should any of the monitoring indicate that the discharge causes, has reasonable potential to cause, or contributes to excursion above a water quality criteria, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity, or to implement any EPA-

approved new state water quality standards applicable to effluent toxicity.

D. RECEIVING WATER QUALITY MONITORING PROGRAM

To determine compliance with water quality standards, the receiving water quality monitoring program must document water quality at the outfall, at areas near the zone of initial dilution (ZID) and zone of mixing (ZOM) boundaries, at areas beyond these zones where discharge impacts might reasonably be expected, and at reference/control areas. The permittee, cooperatively with Samoa Packing Co., shall perform or cause to be performed, water quality monitoring at stations along the shoreline and offshore at regular frequencies as detailed below.

Should any monitoring reveal, in the judgement of either ASEPA or EPA, that the water quality, coral reef, or overall biological health of the harbor is being impaired as a result of the new outfall discharge, either agency may at any time prohibit further discharge.

All water quality samples should be collected and processed according to the protocols found in EPA's guidance document entitled, Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods (EPA, 1987a). Monitoring reports shall be submitted to EPA on a quarterly basis.

Monitoring stations shall be designated and located as shown (also see Figures 1 and 2):

| <u>Offshore Station</u> | <u>Vicinity</u> | <u>Location</u> | <u>Coordinates</u> | |
|-----------------------------|-----------------|-----------------|--------------------|------------------|
| | | | <u>Latitude</u> | <u>Longitude</u> |
| 5 | Transition Zone | | | |
| 6 | Outer harbor | Central | | |
| 7 | Outer harbor | East, South | | |
| 8 | Outer harbor | East | | |
| 8a | Middle harbor | East | | |
| 9 | Middle harbor | East | | |
| 9a | Middle harbor | East | | |
| 10 | Middle harbor | West | | |
| 11 | Inner harbor | Center, East | | |
| 11a | Inner harbor | Center, East | | |
| 12 | Inner harbor | Center | | |
| 13 | Inner harbor | Center, West | | |
| 14 | Middle harbor | Diffuser | | |
| 15 | Middle harbor | ZOM Edge, North | | |
| 16 | Middle harbor | ZOM Edge, West | | |
| 17 | Middle harbor | ZOM Edge, East | | |
| 18 | Outer harbor | ZOM Edge, South | | |

It is recommended that the stations be located using the sextant angle resection positioning method or a positioning system which affords an equivalent degree of accuracy and precision. Other means may be used if, in the judgment of ASEPA and EPA Region 9, they are of sufficient accuracy and precision to allow reoccupation of the stations within plus

or minus six (6) meters.

The following shall constitute the Water Quality Monitoring Program as shown:

| <u>Parameter</u> | <u>Units</u> | <u>Sample Stations</u> | <u>Sample Type</u> | <u>Frequency</u> |
|--------------------|--------------|------------------------|--------------------|------------------|
| Temperature | °F | all | grab | monthly |
| pH | | " | " | " |
| Dissolved Oxygen | mg/l | " | " | " |
| Suspended Solids | mg/l | " | " | " |
| Light Penetration | ft | " | " | " |
| Turbidity | NTU | " | " | " |
| Salinity | ppt | " | " | " |
| Chlorophyll a | ug/l | " | " | " |
| Total Nitrogen | ug/l | " | " | " |
| Total Phosphorus | ug/l | " | " | " |
| Un-ionized ammonia | ug/l | " | " | " |

Measurements should be taken at three depths for each location: 1 meter above the bottom, 1 meter below the surface, and at mid-depth.

E. DYE OR TRACER STUDIES

Within two weeks of the effective date of this permit, the permittee shall submit a plan for approval by the ASEPA and EPA to perform dye and/or tracer studies in order to better understand the fate of the effluent plume. The permittee shall perform these studies quarterly for one year and submit its findings 30 days after conducting each quarterly study. The first study shall be performed within one month after receiving approval from the ASEPA and USEPA.

F. SEDIMENT MONITORING

Sediment monitoring is conducted to determine the character of the sediments in relation to long-term high nutrient discharge by the permittee in the harbor and if harbor recovery will be affected by resuspension of the nutrients.

The permittee, cooperatively with Samoa Packing Co., shall undertake a yearly sediment monitoring program in Pago Pago Harbor in order to assess the concentration of nutrient and organic components, the distribution of stored nutrients, the size of the nutrient reservoir and the rate of accumulation of nutrients. Seven sites shall be located within Pago Pago Harbor and analyzed for total nitrogen, total phosphorus, percent organics, percent solids, bulk density, oxidation-reduction potential and sulfides. Three sites shall be located in inner Pago Pago Harbor and four sites shall be located in the outer harbor. These sites and monitoring plan shall be submitted within three months of the effective date of the permit for approval by ASEPA and EPA. Thereafter, these sites shall be approved annually by the anniversary date of the effective date of the permit. A report of the sediment monitoring program findings shall be submitted to

the ASEPA and EPA 90 days after completion of sampling.

G. EUTROPHICATION STUDY

The permittee cooperatively with Samoa Packing Co., shall complete a study in which a direct assessment of the algal-nutrient relationships in Pago Pago Harbor is obtained. This study shall include construction of algal-nutrient response curves for a range of nitrogen-to-phosphorus ratios, nitrogen and phosphorus levels, salinity levels, and phytoplankton species. A proposed study design shall be submitted to ASEPA and EPA for approval within six months of the effective date of the permit. The study shall be completed and report submitted to ASEPA and EPA within one year of the effective date of the permit.

H. CORAL REEF SURVEY

Within 30 days of the effective date of this NPDES permit, the permittee, in cooperation with Samoa Packing Company, shall submit a field study design for approval by ASEPA and EPA Region 9 to assess the potential impacts of the discharge on the nearby coral reef. The study shall include coral reef transects which shall conform to locations MH-4, OH-5 and OH-1 found on Figure 4 in the USE ATTAINABILITY AND SITE-SPECIFIC CRITERIA ANALYSES; PAGO PAGO HARBOR, AMERICAN SAMOA, FINAL REPORT (CH2MHill, March 15, 1991). The intent of this annual survey is to detect significant differences, if any, from the database information found in the above-cited document. Videos shall be submitted to both the USEPA Region 9 and ASEPA. Guidance for designing such surveys is provided in the "Design of 301(h) Monitoring Programs for Municipal Wastewater Discharges to Marine Waters," November 1982, EPA #430/0-82-010 (pages 70-71). In addition, the discharger should consult "Ecological Impacts of Sewage Discharges on Coral Reef Communities," September 1983, EPA #430/9-83-010, for further information. The discharger shall implement the field study after approval of the design by EPA Region IX and ASEPA and within six months of the effective date of this permit, and annually from that date for the life of the permit.

I. HARBOR-WIDE CIRCULATION STUDY

The permittee, cooperatively with Samoa Packing Company, shall conduct a one-year study of the circulation within Pago Pago Harbor. The location of the stations shall be submitted with a plan of the study for approval by ASEPA and EPA, and the study begun within a year of the effective date of this permit. The objective of the study shall be to ascertain the tidal and seasonal variation of currents (speed/direction) with depth. A report of the study's findings shall be submitted to ASEPA and EPA no later than 2 years after the effective date of the permit.

J. WASTEWATER TREATMENT SYSTEM EVALUATION

The permittee shall retain an independent consultant(s) to

conduct a complete diagnostic evaluation of the wastewater treatment system. The purpose of the evaluation is to review current plant operations and equipment and to identify possible modifications in order to decrease pollutant loads, specifically of nitrogen and phosphorus, to the harbor.

The evaluation shall identify all the components of the wastewater treatment system. Nitrogen, phosphorus, total suspended solids, oil and grease loadings from each waste stream of the Dissolved Air Flotation (DAF) influent (thaw-water, spray-cooling, plant-washdown) shall be determined. Methods for reducing the amount of wastewater and the pollutant loadings of the components of the DAF influent shall be examined.

The DAF equipment shall be reviewed to determine its effectiveness. The report should examine the working order of the equipment and the existing system controls. The report shall compare the design parameters of the DAF system with the average and maximum operating values for air-to-solids ratio (lb air:lb solids), solids loading (lb/ft²/hr), and hydraulic loading (gpm/ft²).

Current chemical treatment shall be analyzed to determine effective dosages. Jar and pilot DAF chemical coagulating testing shall be performed using at least three coagulants. Reduction in nitrogen and phosphorous, and total suspended solids shall be reported for each chemical tested and compared to current treatment.

In conclusion, the report shall list in order of importance all recommended improvements to the system, and estimate the cost of each improvement.

This study shall be performed and a report submitted to the ASEPA, and the EPA within one year of the effective date of this permit and again by the expiration date of this permit. The permittee shall submit for approval by ASEPA and EPA, within sixty days of completing the report, a schedule for implementing the recommended improvements. Should the permittee view some of the improvements economically infeasible or technically impossible, the report should substantiate those views.

If such a study has been performed during the year preceding the effective date of this permit, the permittee is not required to have the first study performed. The permittee must, however submit an implementation schedule within sixty days of the effective date of this permit. One year from the effective date of this permit, and annually thereafter, a report shall be submitted documenting the progress made in implementing these recommendations.

K. POLLUTION PREVENTION PROGRAM

1. Within six months of the effective date of this permit, the permittee shall develop and implement a Pollution Prevention Program. The purpose of the program is to

evaluate and implement methods of reducing or eliminating pollutants listed under section A of this permit from the outfall, stormwater drain(s), plant-site runoff, sludge disposal and fishing vessels. A component of this plan will be a water conservation program.

2. The permittee shall review all facility components or systems (including storage areas; in-plant transfer, process and handling areas; loading and unloading operations; and sludge and waste disposal areas) where these pollutants are generated, stored or handled to evaluate methods for reducing the release of these pollutants to the harbor. In performing such an evaluation, the permittee shall consider ways of preventing fish scraps, oil and grease, etc., from entering the wastewater streams and shall consider typical industry practices such as employee training, inspections and records, preventive maintenance, and good housekeeping. In addition, the permittee may consider structural measures (such as secondary containment devices) where appropriate.
3. The Pollution Prevention Program shall also evaluate ways of preventing fishing vessels from discharging engine oil into the harbor. Such a plan shall consider options such as accepting used oil for burning in the cannery's boilers or for recycling, issuing a multi-lingual statement to each fishing vessel outlining the regulations against illegal dumping, and establishing a company policy that would prohibit the canneries from purchasing tuna from any vessel found responsible for discharging oil.
4. The Pollution Prevention Program shall be documented in narrative form and shall include any necessary pilot plans, drawings or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the program and may be incorporated by reference. The Pollution Prevention plan shall be submitted to ASEPA and EPA within six months of the effective date of this permit and a copy shall be maintained at the facility and annual reports submitted documenting program progress.

L. DEFINITIONS

1. "Ambient conditions" means the existing conditions in the surrounding waters not influenced by the discharger's effluent.
2. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility whose operation is necessary to maintain compliance with the terms and conditions of this permit.
3. "Whole-effluent toxicity" is the aggregate toxic effect of an effluent measured directly with a "toxicity test".

4. "Composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of the discharge, whichever is shorter.

"Composite sample" means, for other than flow rate measurement,

- a. A combination of at least eight individual portions obtained at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling.

OR

- b. A combination of at least eight individual portions of equal volume obtained over a 24-hour period. The time interval will vary such that the volume of wastewater discharged between samplings remains constant.

The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

5. "Daily discharge" means:
- a. For flow rate measurement, the average flow rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.
- b. For pollutant measurements, the concentration or mass emission rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.
6. "Daily maximum" limit means the maximum acceptable "daily discharge". For pollutant measurements, unless otherwise specified, the results to be compared to the "daily maximum" limit are based on "composite samples."
7. "Duly authorized representative" is one whose:
- a. Authorization is made in writing by a principal executive officer or ranking elected official;
- b. Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named

position.); and

- c. Written authorization is submitted to the ASEPA and EPA. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements must be submitted to ASEPA and EPA prior to or together with any reports, information, or other applications to be signed by an authorized representative.
8. "Grab sample" is defined as any individual sample collected in a short period of time not exceeding 15 minutes. "Grab samples" shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with "daily maximum" limits.
9. "Hazardous substance" means any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act.
10. "Heavy metals" are, for the purposes of this permit, arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc.
11. "Indirect discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.
12. "Initial dilution" is the process which results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristics of most municipal wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

Numerically, initial dilution is expressed as the ratio of the volume of discharged effluent plus ambient water entrained during the process of initial dilution to the volume of discharged effluent.

13. "Mass emission rate" is obtained from the following calculations for any calendar day:

$$\text{Mass emission rate (lb/day)} = 8.345/N \sum_{i=1}^N Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = 3.785/N \sum_{i=1}^N Q_i C_i$$

i=1

in which 'N' is the number of samples analyzed in any calendar day. 'Qi' and 'Ci' are the flow rate (MGD) and the concentration (mg/L), respectively, which are associated with each of the 'N' grab samples which may be taken in any calendar day. If a composite sample is taken, 'Ci' is the concentration measured in the composite sample and 'Qi' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste stream as follows:

$$\text{Daily concentration} = \frac{1}{Q_t} \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of component waste streams. 'Qi' and 'Ci' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Qt' is the total flow rate of the combined waste streams.

14. "Monthly average" is the arithmetic mean of daily concentrations, or of daily "mass emission rates", over the specified monthly period:

$$\text{Average} = \frac{1}{N} \sum_{i=1}^N X_i$$

in which 'N' is the number of days samples were analyzed during the period and 'Xi' is either the constituent concentration (mg/L) or mass emission rate (kg/day or lb/day) for each sampled day.

15. "100-year frequency flood" means a flood of unusually large magnitude and which is characterized by its infrequent occurrence.
16. "Open coastal waters" means marine waters bounded by 100 fathom (183 m; 600 ft) depth contour and the shoreline excluding bays named in section 24.0206(c)(2)-(4) of the American Samoa water quality standards.
17. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including the pumping facilities.
20. "Pesticides" are, for purposes of this permit, those six constituents referred to in 40 CFR 125.58(m) (demeton, guthion, malathion, mirex, methoxychlor, and parathion).
19. "Pollutant-free wastewater" means infiltration and inflow, cooling waters, and condensates which are essentially free of pollutants.

20. "Priority pollutants" are those constituents referred to in 40 CFR 401.15 and listed in the EPA NPDES Application Form 2C, pp. V-3 through V-9.
21. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a "bypass" or "overflow." It does not mean economic loss by delays in production.
22. "Sludge" means the solid, semi-liquid suspension of solids, residues, screenings, grit, scum and precipitates separated from, or created in wastewater by the unit processes of a treatment system. It also includes, but is not limited to, all supernatant, filtrate, centrate, decantate, and thickener overflow/underflow in the solids handling parts of the wastewater treatment system.
23. "Toxic pollutant" means any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act or under 40 CFR 122, Appendix D. Violation of the maximum daily discharge limitations are subject to the 24-hour reporting requirement (section P.13.f).
24. "Toxicity test" is the means to determine the toxicity of a chemical or an effluent using living organisms. A toxicity test measures the degree of response of an exposed test organism to a specific chemical or effluent.
25. "Toxic unit chronic" is the reciprocal of the effluent dilution that causes no unacceptable effect on the test organisms by the end of the chronic exposure period.
26. "Upset" means any exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations in the permit because of factors beyond the reasonable control of the discharger. It does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation, or those problems the discharger should have foreseen.
27. "Waste", "waste discharge", "discharge of waste", and "discharge" are used interchangeably in this permit. The requirements of this permit are applicable to the entire volume of water, and the material therein, which is disposed of to marine waters.
28. "Weekly average" is the arithmetic mean of daily concentrations, or of daily mass emission rates, over the specified weekly period:

$$\text{Average} = \frac{1}{N} \sum_{i=1}^N X_i$$

in which 'N' is the number of days samples were analyzed during the period and 'Xi' is either the constituent concentration (mg/L) or "mass emission rate" (kg/day or lb/day) for each sampled day.

29. "Zone of initial dilution" (ZID) means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports, providing that the ZID may not be larger than allowed by mixing zone restrictions in applicable water quality standards [40 CFR 125.58(w)]. For purposes of designating monitoring stations, the region within a horizontal distance equal to a specified water depth (usually depth of outfall or average depth of diffuser) from any point of the diffuser or end of the outfall and the water column above and below that region, including the underlying seabed.
30. "Zone of mixing" (ZOM) means limited areas around outfalls and other facilities approved by ASEQC with the concurrence of EPA to allow for the initial dilution of waste discharges [American Samoa Water Quality Standards].

M. QUALITY ASSURANCE/QUALITY CONTROL

All waste material sampling procedures, analytical protocols, and quality assurance/quality control procedures shall be performed in accordance with guidelines specified by EPA. The following references shall be used by the permittee where appropriate:

1. EPA, 40 CFR 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act;
2. Tetra Tech, Inc. 1985. Summary of the U.S. EPA-approved methods and other guidance for 301(h) monitoring variables. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-693. Tetra Tech, Inc., Bellevue, WA; and
3. Tetra Tech, Inc. 1986. Quality assurance and quality control guidance for 301(h) monitoring programs. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-3968. Tetra Tech, Inc., Bellevue, WA.

N. REPORTING

Monitoring results obtained during the previous 3 months shall be summarized for each month and submitted quarterly on forms to be supplied by EPA, to the extent that the information reported may be entered on the forms. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with

the limitations and requirements of this permit. Monitoring reports shall be postmarked no later than the 28th day of the month following the completed reporting period. The first report is due 4 months after the effective date of this permit. Signed copies of these and all other reports required herein shall be submitted to the EPA Regional Administrator and the Government of American Samoa at the following addresses:

Regional Administrator
Environmental Protection Agency
Region 9, Attn: Office of Pacific Island and
Native American Programs (E-4)
75 Hawthorne Street
San Francisco, CA 94105

Director
American Samoa Environmental Protection Agency
Office of the Governor
Pago Pago, American Samoa 96799

DRAFT

STATEMENT OF BASIS

Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago, Tutuila
American Samoa 96799

I. Description of Facility

The applicant operates a tuna cannery located on Tutuila Island, American Samoa. Process discharges from the cannery enter Pago Pago Harbor at 14 deg. 17 min. 01 sec. South latitude and 170 deg. 40 min. 02 sec. West longitude. The cannery receives whole tuna which is processed into canned tuna and dried fish meal. Waste streams from this operation consist mainly of fish waste, fresh water, and sea water which are treated by Dissolved Air Flootation process. The DAF sludge and the high strength waste (pre-cooker condensate, press juice, fish meal plant wash water, etc.) are barged to sea for disposal. Approximately 402 tons of fish are processed per day. The resulting discharge to Pago Pago Harbor has been a maximum monthly average of 1.68 MGD and a long-term average of 1.40 MGD.

Section 24.0206 (c)(2) of the American Samoa water quality standards states that "Pago Pago Harbor has been designated by the American Samoa Government to be developed into a transshipment center for the South Pacific. Recognizing its unique position as an embayment where water quality has been degraded from the natural condition, the EQC has established a separate set of standards for Pago Pago Harbor." A triennial review of American Samoa water quality standards was begun in 1987 and the results of that review were adopted in 1990. Section 24.0207 (c) specifies the standards that apply specifically to Pago Pago Harbor.

Administrative orders were issued by EPA in June 1990 to both Star-Kist Samoa and Samoa Packing Company for violations of water quality-based effluent limits of their respective 1987 NPDES permits. The orders established interim effluent limits and a schedule for compliance with water quality-based effluent limits by March 7, 1992. Concurrently, the American Samoa Government (ASG) also issued consent decrees mirroring EPA's compliance orders, with stipulated penalties for failure to meet interim effluent limits and compliance schedule deadlines.

Both canneries were required by the orders and consent decrees

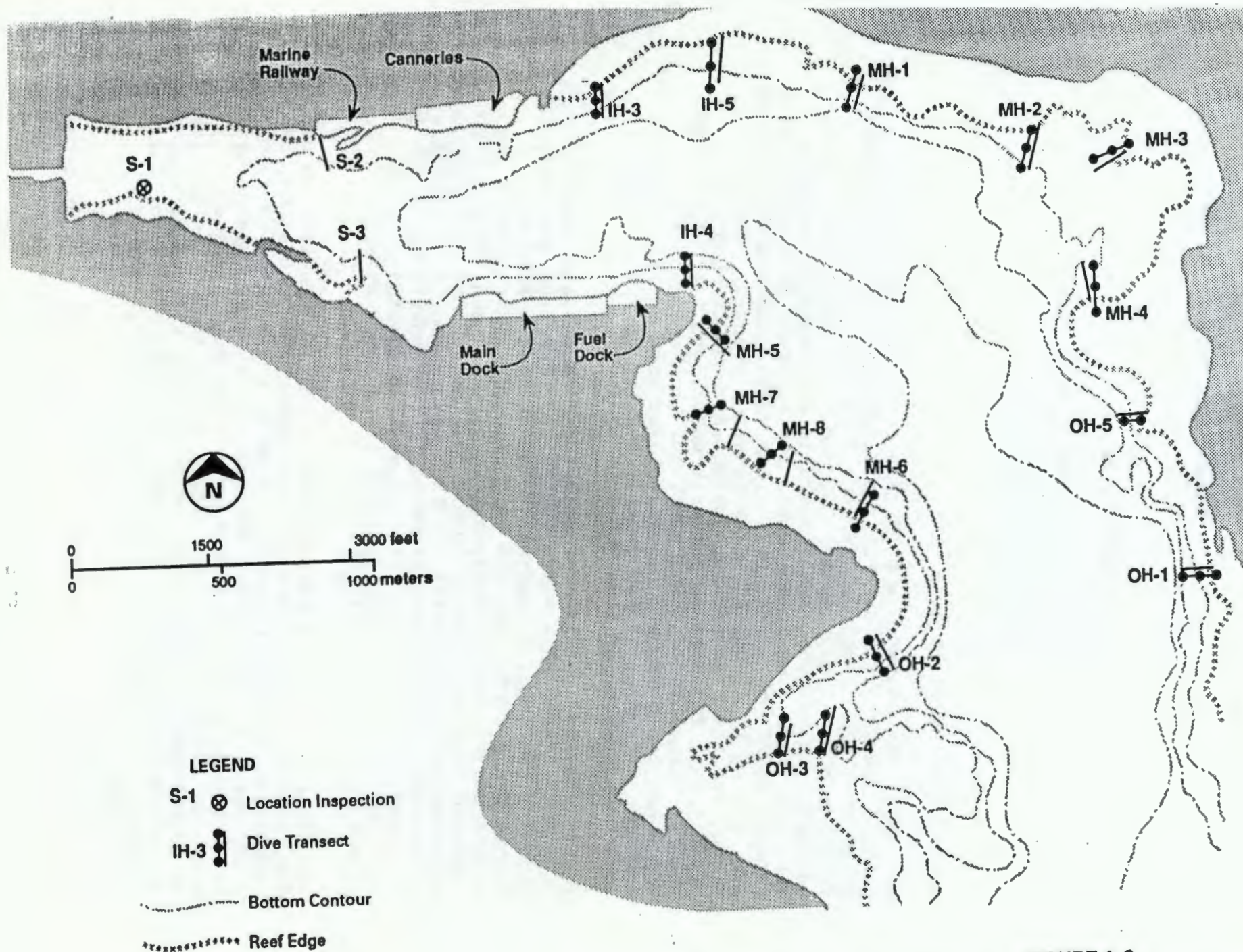
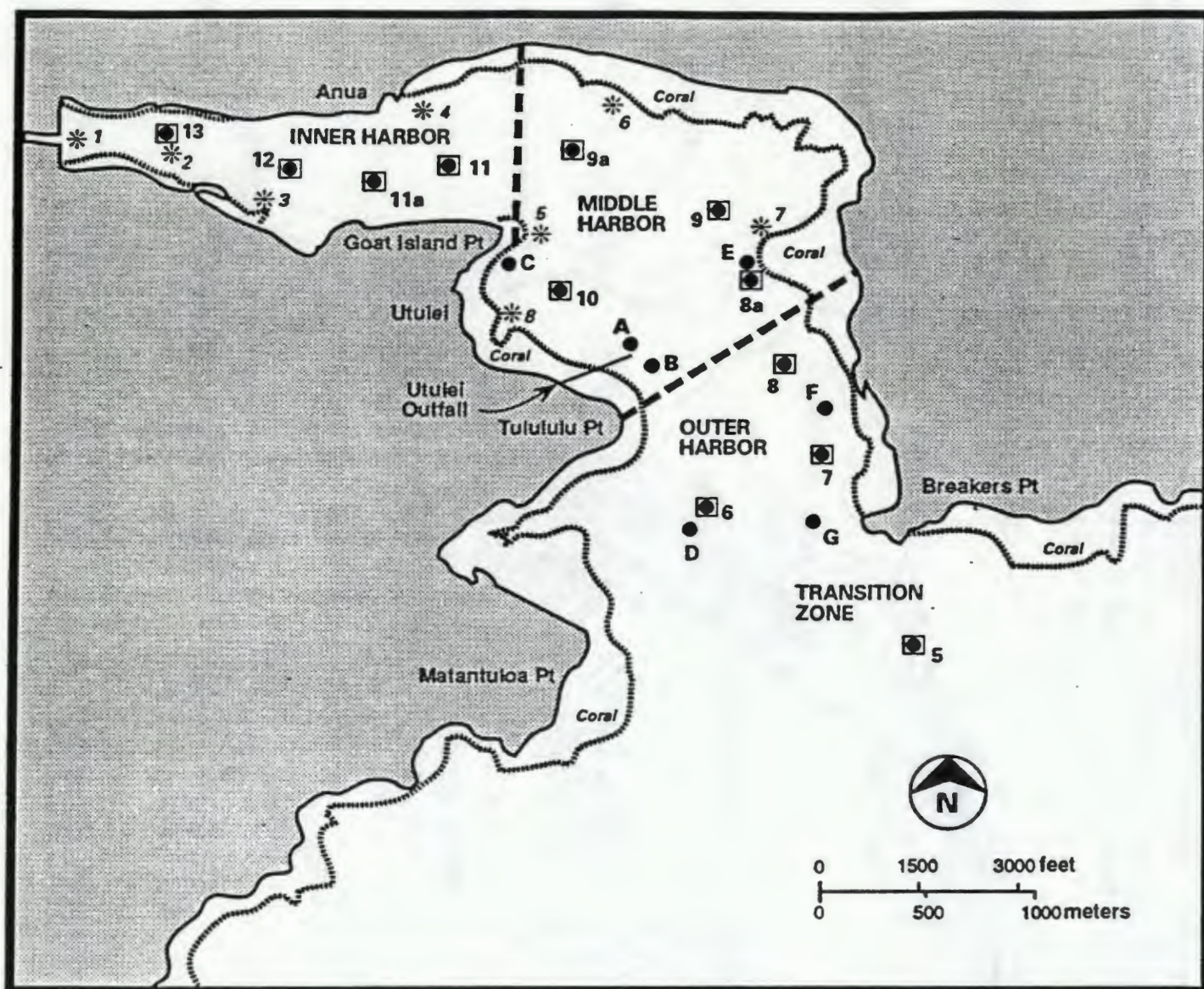


FIGURE 4-3
Coral Reef Transects from 1991 "Use Attainability Analysis", CH2M Hill



LEGEND

- ASG Sampling Station
- Utulei WWTP Station
- * CH2M HILL Field Measurement Station (1/19/91)

FIGURE 2. LOCATION OF WATER QUALITY STATIONS IN PAGO PAGO HARBOR

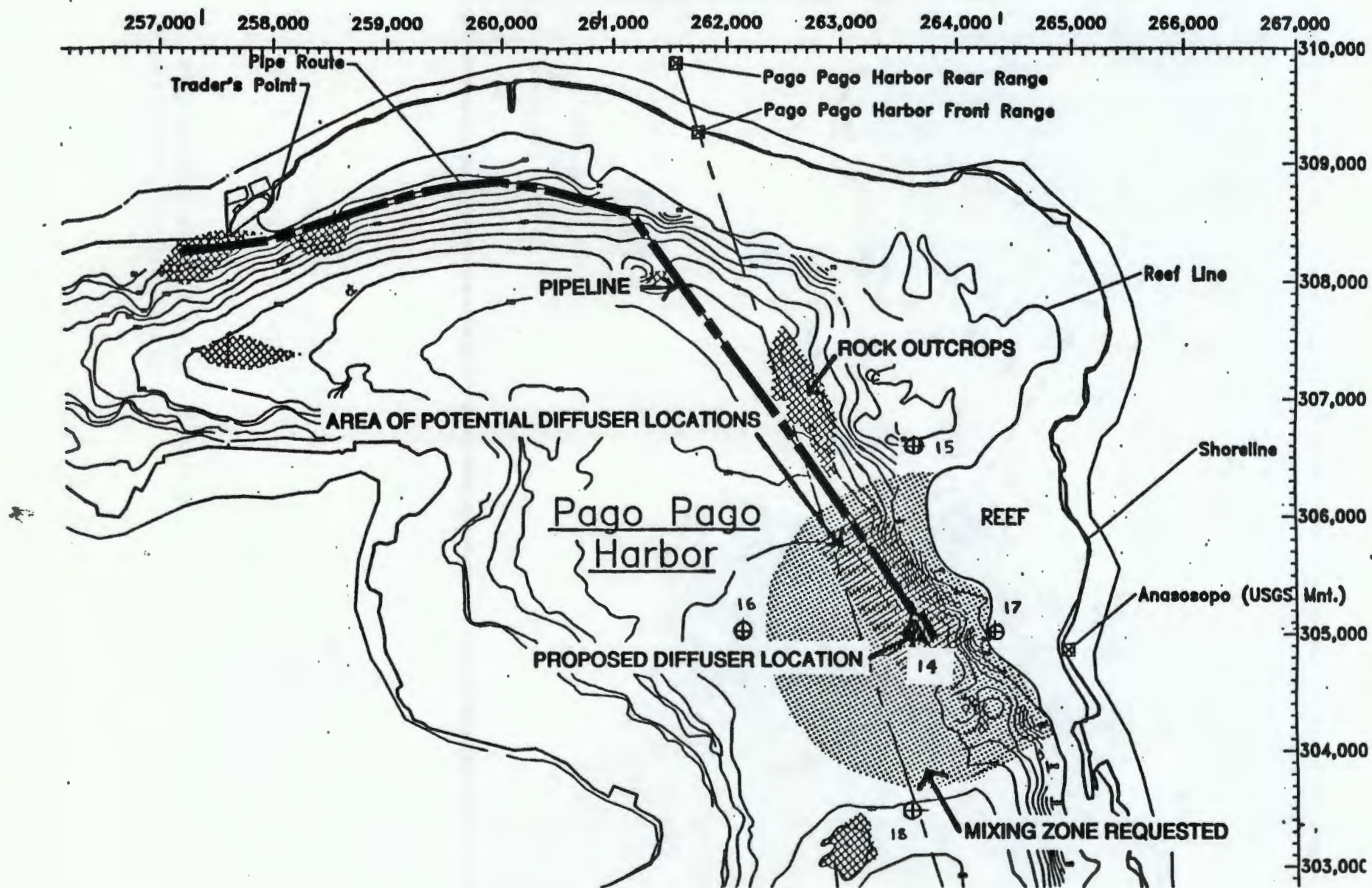


FIGURE 1. NEW MONITORING STATIONS
IN PAGO PAGO HARBOR (14-18)

to segregate high strength waste streams and dispose of these wastes and DAF sludge at a designated ocean disposal site beginning in August 1990. Feasibility studies were also required to be conducted by both canneries for alternatives by which they could achieve compliance with their NPDES permit effluent limits and ASG water quality standards for their remaining discharge into the harbor. The canneries chose to construct a 7,000-foot joint outfall which extends into the outer harbor. The new outfall will be jointly operated by both canneries for discharge of their effluent.

The two canneries also applied for a mixing zone consistent with the requirements set forth in Section 24.0208 of the American Samoa Water Quality Standards. The mixing zone requested extends approximately 1300 feet in radius from the discharge point. The mixing zone was approved by American Samoa Environmental Quality Commission (ASEQC) on November 27, 1991.

Discharge in compliance with this NPDES permit should ensure achievement of all applicable water quality standards. These standards are designed to prevent degradation of water quality. Therefore, compliance with this NPDES permit should prevent any "unreasonable degradation" of the marine environment, and in accordance with section 403(c) of the Clean Water Act, an NPDES permit may be issued.

II. Effluent Limitations

Discharges from fish processing facilities are not subject to any effective EPA effluent limitations guidelines. Therefore, permit requirements were established using best professional judgment and specific water quality standards in order to ensure protection of the beneficial uses of the receiving waters.

A. pH

The Best Practicable Technology (BPT) limit for pH is "within the range of 6.0 to 9.0." However, water quality standards listed under 24.0207 (c)(7) state: "The pH range shall be 6.5 to 8.6 and be within 0.2 pH units of that which would occur naturally." Because the water quality standards are more stringent, and because the mixing zone application states that "other water quality standards (beside total nitrogen, total phosphorus and temperature) will be met within the zone of mixing (e.g. pH, fecal coliform)..." the more stringent standard will apply as the limit.

B. Temperature

Water quality standards specify a temperature limit of 85° F which is to apply to water at the edge of the mixing

zone. It is the best professional judgement of this permit writer, that the water will cool at least 10° from the point it enters the discharge pipe to the edge of the mixing zone. Furthermore, modeling studies were performed by the canneries' consultant assuming the effluent was 85° F and 90° F with no significant difference in dilution rates. Therefore, the permit limit contains a 90° F monthly average and a 95° F daily maximum.

C. Oil and Grease

40 CFR 408.140 sets the BPT limit for oil and grease at a daily maximum of 2.1 lbs/1000 lbs of seafood processed and a monthly average of 0.84 lbs/1000 lbs of seafood processed. Limits for oil and grease were calculated by multiplying the BPT limits stated above, by the average daily production level of 402 tons seafood processed/day. Thus the daily maximum for oil and grease is set at 1,688 lbs/day and the monthly average at 675 lbs/day.

D. Total Suspended Solids

Limits were set for Total Suspended Solids (TSS) using the same rationale detailed in Section C (Oil and Grease). 40 CFR 408.140 sets the BPT limit for TSS at a daily maximum of 8.3 lbs/1000 lbs of seafood processed and a monthly average of 3.3 lbs/1000 lbs of seafood processed. Limits for TSS were calculated by multiplying the BPT limits stated above, by the average daily production level of 402 tons seafood processed/day. Thus the daily maximum for TSS is set at 6,673 lbs/day and the monthly average at 2,653 lbs/day.

E. Total Nitrogen

The mixing zone analysis performed by the canneries' consultant, CH2MHill, indicates that the mixing zone can assimilate 60,000 lbs. of total nitrogen per month. Assuming a 30-day month, an average of 2,000 lbs. of total nitrogen/day can be discharged between the two canneries. The two canneries have agreed between themselves to each assume a portion of this average. Star-Kist will assume 1,200 lbs/day as a monthly average limit for total nitrogen.

The canneries are required to sample twice/week for total nitrogen on production days. Averaging only these samples will yield a number that assumes weekend values are equal to production days. The canneries have claimed that they discharge significantly less nutrients on the weekends. Therefore, should the permittee wish to monitor the effluent on a non-production day(s), the permittee must monitor for the six consecutive days following the non-production day on which the first sample was taken. The

average of all samples taken during that month will determine compliance with the "monthly average". This requirement will ensure that the monitoring is representative of the discharge, and if the canneries are in compliance with their monthly average limits, the mixing zone's capacity of 60,000 lbs/month of total nitrogen will not be exceeded.

StarKist's daily maximum effluent limit for total nitrogen was 2,440 lbs/day as stated in EPA's letter of October 30, 1991, amending its Administrative Order. Samoa Packing Company's daily maximum limit was 1,595 lbs/day, as set in EPA's Administrative Order of June 18, 1990. These limits were initially to be retained in the new permits. However, the canneries expressed a desire to allocate the total of 4,035 lbs/day between themselves. Since the combined number is the same, the canneries were permitted to do so. StarKist agreed to accept a limit of 2,100 lbs/day, and Samoa Packing Company agreed to a limit of 1,935 lbs/day.

The canneries have claimed that total nitrogen and total phosphorus levels in the effluent have no significant correlation to production levels, and their monitoring data supports such a statement (See Appendix B, "Technical Memorandum for Site-Specific Zone of Mixing Determination for Joint Cannery Outfall Project", CH2M Hill, August 26, 1991). Therefore these effluents limits for total nitrogen and total phosphorus do not limit the canneries' production levels.

F. Total Phosphorus

Limits were set for total phosphorus using the same rationale as that detailed in Section E (Total Nitrogen). The total assimilative capacity of the zone of mixing was calculated by CH2MHill to be a monthly average of 400 lbs. of total phosphorus/day. This total was divided between the two canneries and StarKist has agreed to assume a monthly average limit of 192 lbs. of total phosphorus/day.

The combined total of daily maximum limits set in the Administrative Orders was 580 lbs. of total phosphorus/day and will be retained in the current permits. The canneries agreed to reapportion their share of the total. StarKist will assume a daily maximum of 309 lbs. of total phosphorus/day.

G. Toxicity

Section 24.0208 (b)(5) of the American Samoa water quality standards states, "Those water quality parameters which are subject to zone of mixing are chlorophyll a, light penetration depth, nutrients, pH, temperature, turbidity,

and fecal coliform. Determination of effluent limits for toxic substances must comply with 24.0207 (a) (8)(A)-(E) and 24.0207 (a)(9)..."

Section 24.0207 (a)(8)(A) states, "All effluents containing materials attributable to the activities of man shall be considered harmful and not permissible until acceptable bioassay tests have shown otherwise."

Section 24.0207 (a)(8)(C) states, "The survival of test organisms in discharge waters shall not be less than that for water from the same water body in areas unaffected by sewage, industrial wastes, or other activities of man..."

In its permit application, Star-Kist Samoa reported that "No toxic pollutants or hazardous substances present in discharge from existing outfall 001 or from proposed joint cannery outfall." However, the reported level of ammonia in the effluent as indicated in the permit application greatly exceeds national criteria for acute toxicity in marine waters at a pH above 6.7. The average pH of the outer harbor is 8.5. Also, reported levels of zinc and lead exceed the acute criteria, and mercury, cadmium and chromium exceed chronic criteria. Numerical limitations and/or monitoring requirements have been placed in this permit on all the known toxic constituents of the effluent. However, since the degree of toxicity of the whole effluent remains unknown, a monitoring requirement for chronic toxicity has been included in this permit.

The water quality standards state at Section 24.0207 (a)(8)(C), "As a minimum, compliance with the standard as stated in the previous sentence shall be evaluated with a 96-hour bioassay or short-term method for estimating chronic toxicity."

The sea urchin bioassay test specified in the permit compares the percentage of eggs fertilized at different concentrations of the effluent. The number of fertilized and unfertilized eggs is determined by examining the fertilization membrane and indicates chronic toxicity, fulfilling the water quality standards requirement.

H. Ammonia

The canneries have requested that they be exempt from the acute toxicity requirement within a mixing zone. The ASEQC approved this request. Little EPA guidance exists, however, to define a mixing zone in marine waters that prevents lethality to passing organisms. The technical support document for the canneries' zone of mixing application cites a few alternatives, but none seems appropriate to this situation.

CH2MHill proposed to use an 80:1 dilution. This dilution, according to their modeling, occurs 30 seconds after the effluent leaves the pipe. The area associated with an 80:1 dilution is approximately 12 meters. They claim that such a dilution will ensure no lethality to passing organisms.

EPA National Water Quality Criteria for un-ionized ammonia is 0.233 mg/l for marine waters. This value is the Criterion Maximum Concentration (CMC). Multiplying this 0.233 by 80 yields 18.64 mg/l. Referencing the manual "Tables of the fraction of Ammonia in the Undissociated form... for pH 6 to 9, temperature 0-30°C, TDS 0-300 mg/l and salinity 5-35 g/kg," by H.P. Skarheim of the University of California, Berkeley, College of Engineering, and using a pH value of 8.5, temperature of 29 °C, and salinity 35 g/kg (all characteristics of harbor waters), the un-ionized fraction of ammonia is 14 percent. Therefore the ammonia limit for the canneries is established at 133 mg/l.

I. Metals

Significant initial dilution should ensure no toxicity from metals within the zone of mixing. However, because metal readings in Pago Pago Harbor have historically been high, the canneries shall continue to monitor annually for cadmium, chromium, lead, mercury, and zinc.

J. Pago Pago Harbor Monitoring Program

Because the discharge point has been moved to a less degraded portion of the harbor, a monitoring program has been designed to assess the environmental impacts of the canneries' discharge on that area, and to ensure compliance with the water quality standards. The constituents of the program are as follows:

1. Quantitative Data

Temperature, pH, dissolved oxygen, total suspended solids, light penetration, turbidity, salinity, chlorophyll a, total nitrogen, total phosphorus, and un-ionized ammonia are all measured to ensure compliance with numerical limits of the receiving water.

2. Dye or Tracer Studies

Dye or tracer studies should provide useful information for better understanding the fate of the plume, which, according to CH2MHill's modeling, should remain submerged below 60 feet. The plan for conducting these studies and reporting the information

shall be submitted by the canneries to the ASEPA and EPA for approval before the studies are performed.

3. Harbor-Wide Circulation Study

Current patterns in the harbor are not well known as evidenced by discussions with CH2MHill staff and the technical support document for the zone of mixing. Since currents directly affect the dilution rates, a better understanding of the currents in the harbor would be useful to both the permitting authority and the permittee.

4. Eutrophication Study

Eutrophication of the harbor is of great concern because of the high amounts of nutrients in the effluent. The study proposed shall examine algal-nutrient relationships of the harbor.

5. Sediment Monitoring

Sediment monitoring is conducted to determine the character of the sediments in relation to long-term high nutrient discharge by the canneries in the harbor and if harbor recovery will be affected by resuspension of the nutrients.

6. Coral Reef Survey

A coral reef marks one edge of the mixing zone. Because of its close proximity to the outfall, the effluent may effect the local coral community. Possible effects should be analyzed through an annual survey that utilizes the coral reef survey performed in the 1991 Use Attainability Analysis as baseline data. Should the survey reveal significant degradation of the coral community, subsequent analysis may result in order to determine more accurately the causes of the degradation.

K. Wastewater Treatment System Evaluation

The permittee should be continuously seeking ways to improve the quality of its effluent. In order to foster that search, the permit includes a requirement to hire an independent consultant to examine the plant and provide a report on possible improvements. The permittee is then required to implement those improvements unless it can be shown, to the satisfaction of ASEPA and EPA, that the recommendations are economically infeasible or technically impossible.

The guidance in the permit for conducting this evaluation was derived from a study performed by CH2MHill on Samoa

Packing Company's wastewater treatment system in June, 1991.

L. Pollution Prevention Program

In developing a Pollution Prevention Program, the permittee must examine ways to ensure that a minimum amount of pollutants are entering the harbor.



VAN CAMP
SEAFOOD
COMPANY, INC.

December 27, 1991

USEPA, Region 9
Office of Pacific Island
and Native American Programs
75 Hawthorne Street
San Francisco, CA 94105

ATTN: Mr. Norman Lovelace

Dear Norman:

This letter is to advise of the limitations for Nitrogen and Phosphorus agreed upon between StarKist and Samoa Packing Company.

| | <u>Sampac</u> | <u>StarKist</u> | <u>Combined</u> |
|--------------------|---------------|-----------------|-----------------|
| <u>Nitrogen</u> | | | |
| Monthly Ave (#/D.) | 800 | 1,200 | 2,000 |
| Daily Max. (#/D.) | 2,080 | 2,260 | 4,340 |
| <u>Phosphorus</u> | | | |
| Monthly Ave (#/D.) | 208 | 192 | 400 |
| Daily Max. (#/D.) | 271 | 309 | 580 |

Issues related to other NPDES limits will be addressed separately.

Sincerely,

James L. Cox, Director
Engineering and Environmental Affairs

JLC:ms

cc: Pat Young - Fax 415-744-1604 Pati Faiai - Fax 684-633-5801
 Doug Liden - Fax 415-744-1873 Sheila Wiegman - 684-633-5801

122791.2JC



VAN CAMP
SEAFOOD
COMPANY, INC.

December 27, 1991

N & P Limits

USEPA, Region 9
Office of Pacific Island
and Native American Programs
75 Hawthorne Street
San Francisco, CA 94105

ATTN: Mr. Norman Lovelace

Dear Norman:

This letter is to advise of the limit
Phosphorus agreed upon between StarKist and

Sampac

Nitrogen

| | |
|--------------------|-------|
| Monthly Ave (#/D.) | 800 |
| Daily Max. (#/D.) | 2,080 |

Phosphorus

| | |
|--------------------|-----|
| Monthly Ave (#/D.) | 208 |
| Daily Max. (#/D.) | 271 |

Issues related to other NPDES limits will

Sincerely,

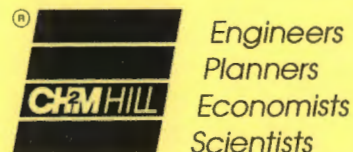
James L. Cox,
Engineering ar

JLC:ms

cc: Pat Young - Fax 415-744-1604 Pati F
Doug Liden- Fax 415-744-1873 Sheila

122791.2JC

Application



September 3, 1991

PDX30702.PA.NP

Mr. Norman L. Lovelace, Ch
Office of Pacific Island a
U.S. Environmental Protect
75 Hawthorne Street
San Francisco, CA 94105

Subject: NPDES Permit Appl
for the New Joint
Harbor, American

Dear Mr. Lovelace;

Attached is the applicatio
StarKist Samoa, Inc. canne
proposed joint cannery out
Samoa. I am submitting th
behalf of StarKist Samoa,
been signed by Mr. Maurice
StarKist Samoa, Inc.

This new NPDES Permit appl
participation with VCS Sam
joint cannery outfall is s
given in your letter of Ju
Inc. Since this is a new
discharge facility the old
been used as the EPA I.D.
that the NPDES permit for
replace the permit for Sta
since the operation of the
discontinued upon activati
outfall.

The water quality data sum
for the period since the i
waste segregation in Augus
from August 1990 through J
presented on NPDES Form 2C
monitoring program establi
existing outfall 001 (AS00
presented in the Discharge
special sample was collect
constituents that are not
DMR's.

Recd 9/3/91



September 3, 1991

PDX30702.PA.NP

Mr. Norman L. Lovelace, Chief
Office of Pacific Island and Native American Programs
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Subject: NPDES Permit Application for StarKist Samoa, Inc.
for the New Joint Cannery Outfall, Pago Pago
Harbor, American Samoa

Dear Mr. Lovelace;

Attached is the application for a new NPDES permit for StarKist Samoa, Inc. cannery effluent discharge to the proposed joint cannery outfall in Pago Pago Harbor, American Samoa. I am submitting this NPDES Permit Application on behalf of StarKist Samoa, Inc. The permit application has been signed by Mr. Maurice Callaghan, General Manager, StarKist Samoa, Inc.

This new NPDES Permit application for StarKist Samoa's participation with VCS Samoa Packing Company in the new joint cannery outfall is submitted following the guidance given in your letter of June 20, 1991 to StarKist Samoa, Inc. Since this is a new NPDES application for a proposed discharge facility the old NPDES number AS0000019 has not been used as the EPA I.D. number. It is my understanding that the NPDES permit for the new joint cannery outfall will replace the permit for StarKist Samoa, Inc. outfall 001 since the operation of the existing outfall 001 will be discontinued upon activation of the new joint cannery outfall.

The water quality data summarized in Table V of Form 2C is for the period since the implementation of high strength waste segregation in August 1990. The data cover the period from August 1990 through July 1991. The water quality data presented on NPDES Form 2C was collected as part of the monitoring program established in the NPDES Permit for the existing outfall 001 (AS0000019), and is the same data presented in the Discharge Monitoring Reports (DMR). A special sample was collected to analyze those water quality constituents that are not monitored and reported in the DMR's.

StarKist Samoa, Inc. projects that the average daily production for the cannery will be increasing to 550 tons of tuna. This production value is based on a five year permit period for the NPDES Permit. The water quality data included in Table V of Form 2C is based on actual concentrations and mass loadings are based on flow rates or on actual production where appropriate.

The analyses done for the zone of mixing application (reported in the Technical Memorandum, Appendix B) show no significant relationship between nutrient (Total Nitrogen and Total Phosphorus) loadings and production after the beginning of the high strength waste segregation. The present discharge of oil and grease and total suspended solids (lbs/1000 lbs of seafood) are well below the effluent guideline limitations promulgated under Section 304 of the Clean Water Act (40 CFR 408.142 (a)), Subpart N - Tuna Processing Subcategory. There are also no apparent problems with pH.

The design of the zone of mixing provides for increases in the discharge of nutrients from existing levels. Enhanced initial dilution with the new diffuser location and design will substantially dilute the effluent. Worst case dilutions exceed 350:1 at the edge of the zone of initial dilution (ZID). Relocation of the outfall into the outer harbor area further enhances subsequent (farfield) dilutions. The projected increase in production will fall well within the dilution capability of the zone of mixing for the joint cannery outfall.

Please feel free to contact me at (415) 652-2426 or Mr. Norman Wei, StarKist Seafood Company, (213) 590-3873 if you or your staff have any questions or comments on the NPDES Permit Application.

Sincerely,

CH2M HILL



Steven L. Costa
Project Manager
Enclosure

cc: Sheila Wiegman/ASEPA
Pat Young/USEPA
Norman Wei/StarKist Seafood Company
Maurice Callaghan/StarKist Samoa, Inc.

| FORM 1 GENERAL | | U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.) | | I. EPA I.D. NUMBER | | | |
|---|--|--|----|--|--|----|---------------|
| | | | | | | | |
| LABEL ITEMS | | PLEASE PLACE LABEL IN THIS SPACE | | GENERAL INSTRUCTIONS | | | |
| I. EPA I.D. NUMBER | | | | <p>If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.</p> | | | |
| III. FACILITY NAME | | | | | | | |
| V. FACILITY MAILING ADDRESS | | | | | | | |
| VI. FACILITY LOCATION | | | | | | | |
| II. POLLUTANT CHARACTERISTICS | | | | | | | |
| <p>INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.</p> | | | | | | | |
| SPECIFIC QUESTIONS | | MARK 'X' | | SPECIFIC QUESTIONS | | | |
| | | YES | NO | FORM ATTACHED | MARK 'X' | | |
| | | YES | NO | FORM ATTACHED | YES | NO | FORM ATTACHED |
| A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A) | | | X | | B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B) | | |
| | | 16 | 17 | 18 | | | |
| C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C) | | X | | X | D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D) | | |
| | | 22 | 23 | 24 | | | |
| E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3) | | | X | | F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4) | | |
| | | 28 | 29 | 30 | | | |
| G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4) | | | X | | H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4) | | |
| | | 34 | 35 | 36 | | | |
| I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | | X | | J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | |
| | | 40 | 41 | 42 | | | |
| III. NAME OF FACILITY | | | | | | | |
| 1 SKIP STARKIST SAMOA INC | | | | | | | |
| 13 16 22 30 69 | | | | | | | |
| IV. FACILITY CONTACT | | | | | | | |
| A. NAME & TITLE (last, first, & title) | | | | B. PHONE (area code & no.) | | | |
| 2 CALLAGHAN MAURICE GENERAL MGR | | | | 6 8 4 6 4 4 4 2 3 1 | | | |
| 13 16 45 46 - 48 49 - 51 52 - 55 | | | | | | | |
| V. FACILITY MAILING ADDRESS | | | | | | | |
| A. STREET OR P.O. BOX | | | | | | | |
| 3 P.O. BOX 468 | | | | | | | |
| 13 16 45 | | | | | | | |
| B. CITY OR TOWN | | | | C. STATE | D. ZIP CODE | | |
| 4 PAGO PAGO, TUTUILA | | | | AS | 9 6 7 9 9 | | |
| 13 16 40 41 42 47 51 | | | | | | | |
| VI. FACILITY LOCATION | | | | | | | |
| A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER | | | | | | | |
| 5 | | | | | | | |
| 13 16 45 | | | | | | | |
| B. COUNTY NAME | | | | | | | |
| MAOPUTASI | | | | | | | |
| 46 70 | | | | | | | |
| C. CITY OR TOWN | | | | D. STATE | E. ZIP CODE | | |
| 6 ATU'U | | | | AS | 9 6 7 9 9 | | |
| 13 16 40 41 42 47 51 | | | | | | | |
| | | | | F. COUNTY CODE (if known) | | | |
| | | | | | | | |
| | | | | | | | |

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

| A. FIRST | | | | B. SECOND | | | |
|----------|----|---------|---|-----------|----|---------|---------------------------------------|
| C | 7 | 2,0,9,1 | (specify) processing and canning of tuna fish | C | 7 | 2,0,4,7 | (specify) Canning of pet food |
| 15 | 16 | 17 | 18 | 15 | 16 | 17 | 18 |
| C. THIRD | | | | D. FOURTH | | | |
| C | 7 | 2,0,4,8 | (specify) processing of fish by-products into fish meal | C | 7 | 3,4,1,1 | (specify) Manufacturing of metal cans |
| 15 | 16 | 17 | 18 | 15 | 16 | 17 | 18 |

VIII. OPERATOR INFORMATION

| A. NAME | | | | | | | | | | | | | | | B. Is the name listed in Item VIII-A also the owner? | | | | | | | | | | | |
|---|----|-----------------------------------|--|--|--|--|--|--|--|----------|--|---------------|--|--|---|----|----|----|----|----|----|----|----|----|----|---|
| C | 8 | S T A R K I S T S A M O A , I N C | | | | | | | | | | | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | | | | | | |
| 15 | 16 | | | | | | | | | | | | | | 55 68 | | | | | | | | | | | |
| C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.) | | | | | | | | | | | | | | | D. PHONE (area code & no.) | | | | | | | | | | | |
| F = FEDERAL M = PUBLIC (other than federal or state) S = STATE O = OTHER (specify) P (specify) | | | | | | | | | | | | | | | C | A | 6 | 8 | 4 | 6 | 4 | 4 | 4 | 2 | 3 | 1 |
| 56 | | | | | | | | | | | | | | | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | |
| E. STREET OR P.O. BOX | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P O B O X 4 6 8 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 55 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F. CITY OR TOWN | | | | | | | | | | G. STATE | | H. ZIP CODE | | | IX. INDIAN LAND | | | | | | | | | | | |
| C | B | P A G O P A G O , T U T U I L A | | | | | | | | A S | | 9 6 7 9 9 | | | Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | | | | | | | | |
| 15 | 16 | | | | | | | | | 40 | | 41 42 47 - 51 | | | 52 | | | | | | | | | | | |

X. EXISTING ENVIRONMENTAL PERMITS

| A. NPDES (Discharges to Surface Water) | | | | | | | | | | D. PSD (Air Emissions from Proposed Sources) | | | | | | | | | |
|--|----|----|-------------------|----|----|----|----|----|----|--|----|--|----|----|----|--|--|--|--|
| C | 9 | N | A S 0 0 0 0 0 1 9 | | | | | | | C | 9 | P | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | |
| B. UIC (Underground Injection of Fluids) | | | | | | | | | | E. OTHER (specify) | | | | | | | | | |
| C | 9 | U | | | | | | | | C | 9 | O D 9 0 - 0 1 S P E C I A L (specify) Ocean dumping permit for high strength waste | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | |
| C. RCRA (Hazardous Wastes) | | | | | | | | | | E. OTHER (specify) | | | | | | | | | |
| C | 9 | R | | | | | | | | C | 9 | (specify) | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | |

XI. MAP

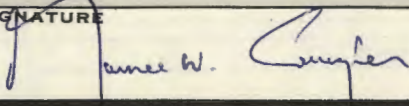
Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

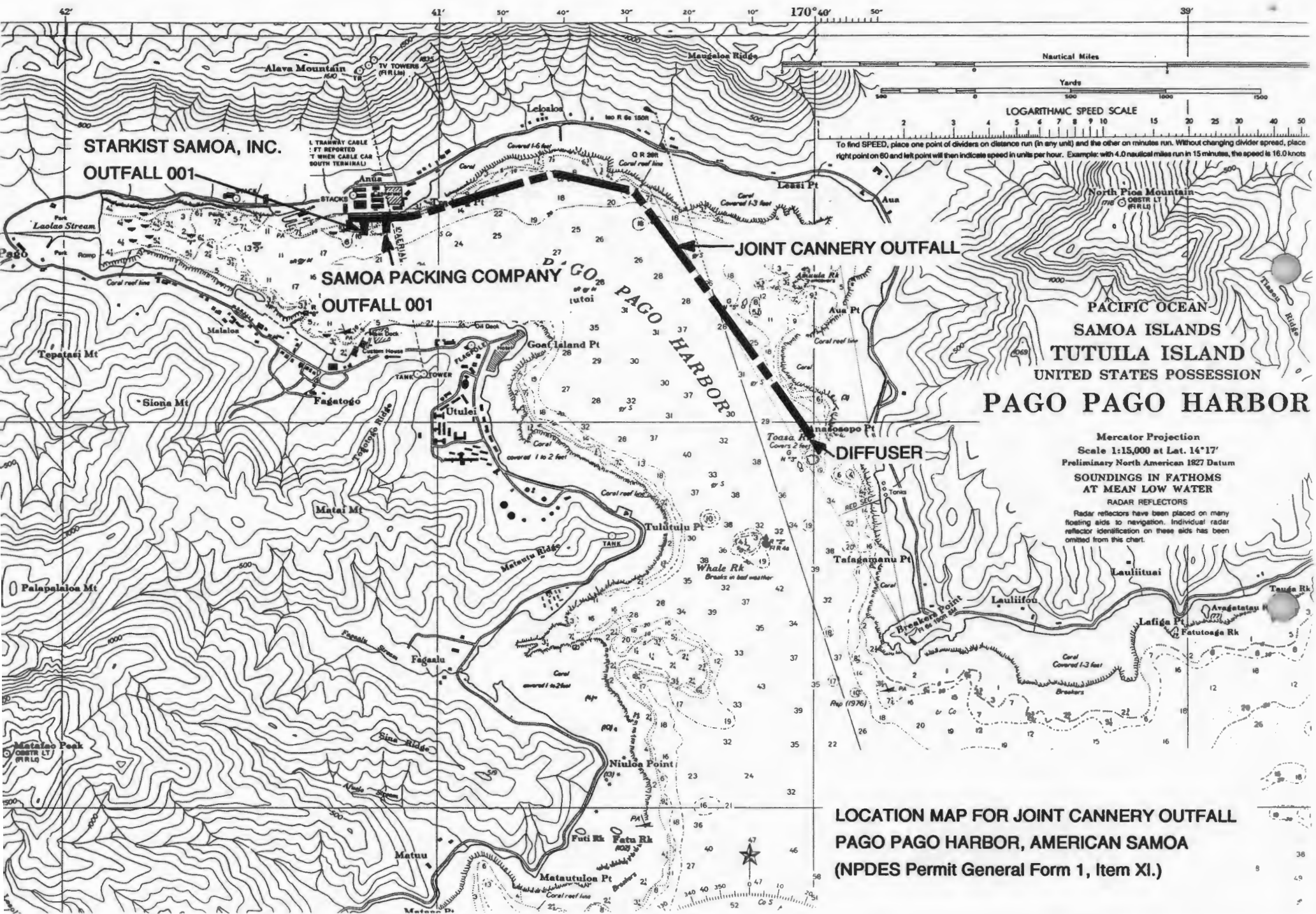
XII. NATURE OF BUSINESS (provide a brief description)

StarKist Samoa, Inc. conducts the processing and canning of tuna fish and other ingredients for human consumption, canning of pet food, the processing of fish by-products into fish meal, and the manufacturing of metal cans used in the production process.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

| A. NAME & OFFICIAL TITLE (type or print) | | | | | | | | | | | | | | | B. SIGNATURE | | | | | | | | | | | | | | | C. DATE SIGNED | | | | | | | | | |
|--|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|--|--|
| Maurice Callaghan General Manager | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | 8.14.91 | | | | | | | | | |
| COMMENTS FOR OFFICIAL USE ONLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



[illegible]

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ **NO** (to to Section IV)☐ **NO** (go to Section IV)[illegible]

IV. IMPROVEMENTS

A 4-year-old girl with a 14-month history of progressive weakness and

☐ **NO** (go to Item IV-B)

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects) which may affect

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (identify the test(s) and describe their purposes below)

☒ NO (go to Section VIII)

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ NO (go to Section IX)

| A. NAME | B. ADDRESS | C. TELEPHONE (area code & no.) | D. POLLUTANTS ANALYZED (list) |
|---------|---|-----------------------------------|--|
| AECOS | 970 N. Kalaheo Avenue Suite C311 Kailua, HI 96734 | (808) 254-5884 | Pollutants Part A 1a,1b,1c,1d,1e,1i Pollutants Part B 1f,1g,1h,1i Pollutants Part C 4M,5M,7M,8M,13M |

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (type or print)

Maurice Callaghan
General Manager

B. PHONE NO. (area code & no.)

(684) 644-4231

C. SIGNATURE

Maurice W. Callaghan

D. DATE SIGNED

8-14-91

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO.
-001
-Joint
Cannery
Outfall

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

| 1. POLLUTANT | 2. EFFLUENT | | | | | | | 3. UNITS (specify if blank) | | 4. INTAKE (optional) | | |
|------------------------------------|------------------------|----------------------|---|---------------------|--|----------|-----------------------|--------------------------------|---------|-------------------------------|----------|-----------------------|
| | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| a. Biochemical Oxygen Demand (BOD) | 690 | 6882 ⁽⁵⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| b. Chemical Oxygen Demand (COD) | 1042 | 10392 ⁽⁵⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| c. Total Organic Carbon (TOC) | 274 | 2733 ⁽⁵⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| d. Total Suspended Solids (TSS) | 3.70 | 2085 ⁽⁶⁾ | 2.15 | 1282 ⁽⁶⁾ | 1.29 | 893 | 99 | lbs/1000 seafood | lbs/day | | | |
| e. Ammonia (as N) | 78.5 | 783 ⁽⁵⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| f. Flow | VALUE 2.6500 | | VALUE 1.6757 | | VALUE 1.3971 | | 351 | mgd | - | VALUE | | |
| g. Temperature (winter) (7) | VALUE 32.2 | | VALUE 31.1 | | VALUE - | | 212 | °C | | VALUE | | |
| h. Temperature (summer) (7) | VALUE 32.2 | | VALUE 29.4 | | VALUE - | | 139 | °C | | VALUE | | |
| i. pH | MINIMUM 6.5 | MAXIMUM 8.2 | MINIMUM 6.6 | MAXIMUM 7.6 | | | 350 | STANDARD UNITS | | | | |

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NO. (if available) | 2. MARK 'X' | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|--|---------------------|--------------------|------------------------|----------|---|----------|--|----------|-----------------------|------------------|---------|-------------------------------|----------|-----------------------|
| | a. BELIEVED PRESENT | b. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| a. Bromide (24959-67-9) | | X | | | | | | | | | | | | |
| b. Chlorine, Total Residual | | X | | | | | | | | | | | | |
| c. Color (8) | X | | | | | | | | | | | | | |
| d. Fecal Coliform | | X | | | | | | | | | | | | |
| e. Fluoride (16984-48-8) | | X | | | | | | | | | | | | |
| f. Nitrate- Nitrite (as N) (9) | X | | 0.017 | - | - | - | - | - | 6 | mg/l | - | | | |

ITEM V-B CONTINUED FROM FRONT

| 1. POLLUT- ANT AND CAS NO. (if available) | 2. MARK 'X' | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|----------------------------------|---------------------------------|------------------------|---------------------|---|---------------------|--|----------|----------------------------|---------------------|---------|-------------------------------|----------|----------------------------|
| | a. BE- LIEVED PRE- SENT | b. BE- LIEVED AD- SENT | 8. MAXIMUM DAILY VALUE | | d. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL- YSES | 8. CONCENTRATION | b. MASS | 8. LONG TERM AVERAGE VALUE | | d. NO. OF ANAL- YSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| | | | | | | | | | | | | | | |
| g. Nitrogen, Total Organic (as N) | X | | 285.0 | 2463 ⁽⁶⁾ | 138.5 | 1481 ⁽⁶⁾ | 82.7 | 1135 | 99 | mg/l | lbs/day | | | |
| h. Oil and Grease | X | | 1.20 | 906 ⁽⁶⁾ | 0.44 | 489 ⁽⁶⁾ | 0.34 | 259 | 100 | lbs/1000 seafood | lbs/day | | | |
| i. Phosphorus (as P), Total (7723-14-0) | X | | 22.9 | 312 ⁽⁶⁾ | 12.2 | 192 ⁽⁶⁾ | 8.8 | 123 | 99 | mg/l | lbs/day | | | |
| J. Radioactivity | | | | | | | | | | | | | | |
| (1) Alpha, Total | | X | | | | | | | | | | | | |
| (2) Beta, Total | | X | | | | | | | | | | | | |
| (3) Radium, Total | | X | | | | | | | | | | | | |
| (4) Radium 226, Total | | X | | | | | | | | | | | | |
| k. Sulfate (as SO ₄) (14808-79-8) | | X | | | | | | | | | | | | |
| l. Sulfide (as S) | | X | | | | | | | | | | | | |
| m. Sulfite (as SO ₃) (14265-45-3) | | X | | | | | | | | | | | | |
| n. Surfactants | | X | | | | | | | | | | | | |
| o. Aluminum, Total (7429-90-5) | | X | | | | | | | | | | | | |
| p. Barium, Total (7440-39-3) | | X | | | | | | | | | | | | |
| q. Boron, Total (7440-42-8) | | X | | | | | | | | | | | | |
| r. Cobalt, Total (7440-48-4) | | X | | | | | | | | | | | | |
| s. Iron, Total (7439-89-6) | | X | | | | | | | | | | | | |
| t. Magnesium, Total (7439-95-4) | | X | | | | | | | | | | | | |
| u. Molybdenum, Total (7439-98-7) | | X | | | | | | | | | | | | |
| v. Manganese, Total (7439-96-5) | | X | | | | | | | | | | | | |
| w. Tin, Total (7440-31-5) | | X | | | | | | | | | | | | |
| x. Titanium, Total (7440-32-6) | | X | | | | | | | | | | | | |

Existing Outfall 001

Proposed Joint Cannery Outfall

Form Approved.

OMB No. 2040-0086

Approval expires 7-31-88

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|---|---------------------|---------------------|--------------------|------------------------|----------------------|--|----------|--|----------|--------------------|------------------|----------------------|----------------------------|----------|--------------------|
| | a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | b. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| METALS, CYANIDE, AND TOTAL PHENOLS | | | | | | | | | | | | | | | |
| 1M. Antimony, Total (7440-36-0) | | | X | | | | | | | | | | | | |
| 2M. Arsenic, Total (7440-38-2) | | | X | | | | | | | | | | | | |
| 3M. Beryllium, Total, 7440-41-7) | | | X | | | | | | | | | | | | |
| 4M. Cadmium, Total (7440-43-9) | X | | | 0.024 | 0.43 ⁽¹¹⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| 5M. Chromium, Total (7440-47-3) | X | | | 0.04 | 0.7 ⁽¹¹⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| 6M. Copper, Total (7440-50-8) | | | X | | | | | | | | | | | | |
| 7M. Lead, Total (7439-92-1) (10) | X | | | 0.10 | 1.8 ⁽¹¹⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| 8M. Mercury, Total (7439-97-6) (10) | X | | | 0.002 | 0.04 ⁽¹¹⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| 9M. Nickel, Total (7440-02-0) | | | X | | | | | | | | | | | | |
| 10M. Selenium, Total (7782-49-2) | | | X | | | | | | | | | | | | |
| 11M. Silver, Total (7440-22-4) | | | X | | | | | | | | | | | | |
| 12M. Thallium, Total (7440-28-0) | | | X | | | | | | | | | | | | |
| 13M. Zinc, Total (7440-66-6) (10) | X | | | 0.32 | 5.8 ⁽¹¹⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| 14M. Cyanide, Total (57-12-5) | | | X | | | | | | | | | | | | |
| 15M. Phenols, Total | | | X | | | | | | | | | | | | |
| DIOXIN | | | | | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6) | | | X | DESCRIBE RESULTS | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|---|------------------------------------|----------------------------------|---------------------------------|------------------------|----------|---|----------|---|----------|----------------------------|------------------|----------------------|-------------------------------|----------|----------------------------|
| | a. TEST- ING RE- QUIRE- D | b. SE- LIEVED PRE- SENT | c. SE- LIEVED AB- SENT | 8. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | d. NO. OF ANAL- YSES | a. CONCENTRATION | b. MASS | 8. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION - VOLATILE COMPOUNDS | | | | | | | | | | | | | | | |
| 1V. Acrolein (107-02-8) | | | X | | | | | | | | | | | | |
| 2V. Acrylonitrile (107-13-1) | | | X | | | | | | | | | | | | |
| 3V. Benzene (71-43-2) | | | X | | | | | | | | | | | | |
| 4V. Bis (Chloro- methyl) Ether (542-88-1) | | | X | | | | | | | | | | | | |
| 5V. Bromoform (75-25-2) | | | X | | | | | | | | | | | | |
| 6V. Carbon Tetrachloride (56-23-5) | | | X | | | | | | | | | | | | |
| 7V. Chlorobenzene (108-90-7) | | | X | | | | | | | | | | | | |
| 8V. Chlorodi- bromomethane (124-48-1) | | | X | | | | | | | | | | | | |
| 9V. Chloroethane (75-00-3) | | | X | | | | | | | | | | | | |
| 10V. 2-Chloro- ethylvinyl Ether (110-75-8) | | | X | | | | | | | | | | | | |
| 11V. Chloroform (67-66-3) | | | X | | | | | | | | | | | | |
| 12V. Dichloro- bromomethane (75-27-4) | | | X | | | | | | | | | | | | |
| 13V. Dichloro- difluoromethane (75-71-8) | | | X | | | | | | | | | | | | |
| 14V. 1,1-Dichloro- ethane (75-34-3) | | | X | | | | | | | | | | | | |
| 15V. 1,2-Dichloro- ethane (107-06-2) | | | X | | | | | | | | | | | | |
| 16V. 1,1-Dichloro- ethylene (75-35-4) | | | X | | | | | | | | | | | | |
| 17V. 1,2-Dichloro- propane (78-87-5) | | | X | | | | | | | | | | | | |
| 18V. 1,3-Dichloro- propylene (542-75-6) | | | X | | | | | | | | | | | | |
| 19V. Ethylbenzene (100-41-4) | | | X | | | | | | | | | | | | |
| 20V. Methyl Bromide (74-83-9) | | | X | | | | | | | | | | | | |
| 21V. Methyl Chloride (74-87-3) | | | X | | | | | | | | | | | | |

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|------------------------|-----------------------|----------------------|------------------------|----------|---|----------|--|----------|---------------------|------------------|----------------------|----------------------------|----------|---------------------|
| | a. TEST-ING RE-QUIR-ED | b. BE-LIEVED PRE-SENT | c. BE-LIEVED AB-SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL-YSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL-YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION – VOLATILE COMPOUNDS (continued) | | | | | | | | | | | | | | | |
| 22V. Methylene Chloride (75-09-2) | | | X | | | | | | | | | | | | |
| 23V. 1,1,2,2-Tetra-chloroethane (79-34-5) | | | X | | | | | | | | | | | | |
| 24V. Tetrachloro-ethylene (127-18-4) | | | X | | | | | | | | | | | | |
| 25V. Toluene (108-88-3) | | | X | | | | | | | | | | | | |
| 26V. 1,2-Trans-Dichloroethylene (156-60-5) | | | X | | | | | | | | | | | | |
| 27V. 1,1,1-Tri-chloroethane (71-55-6) | | | X | | | | | | | | | | | | |
| 28V. 1,1,2-Tri-chloroethane (79-00-5) | | | X | | | | | | | | | | | | |
| 29V. Trichloro-ethylene (79-01-6) | | | X | | | | | | | | | | | | |
| 30V. Trichloro-fluoromethane (75-69-4) | | | X | | | | | | | | | | | | |
| 31V. Vinyl Chloride (75-01-4) | | | X | | | | | | | | | | | | |
| GC/MS FRACTION – ACID COMPOUNDS | | | | | | | | | | | | | | | |
| 1A. 2-Chlorophenol (95-57-8) | | | X | | | | | | | | | | | | |
| 2A. 2,4-Dichloro-phenol (120-83-2) | | | X | | | | | | | | | | | | |
| 3A. 2,4-Dimethyl-phenol (105-67-9) | | | X | | | | | | | | | | | | |
| 4A. 4,6-Dinitro-O-Cresol (534-52-1) | | | X | | | | | | | | | | | | |
| 5A. 2,4-Dinitro-phenol (51-28-5) | | | X | | | | | | | | | | | | |
| 6A. 2-Nitrophenol (88-75-5) | | | X | | | | | | | | | | | | |
| 7A. 4-Nitrophenol (100-02-7) | | | X | | | | | | | | | | | | |
| 8A. P-Chloro-M-Cresol (59-50-7) | | | X | | | | | | | | | | | | |
| 9A. Pentachloro-phenol (87-86-5) | | | X | | | | | | | | | | | | |
| 10A. Phenol (108-95-2) | | | X | | | | | | | | | | | | |
| 11A. 2,4,6-Tri-chlorophenol (88-06-2) | | | X | | | | | | | | | | | | |

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|------------------------------------|----------------------------------|---------------------------------|------------------------|----------|---|----------|--|----------|----------------------------|------------------|----------------------|-------------------------------|----------|----------------------------|
| | a. TEST- ING RE- QUIR- ED | b. SE- LIEVED PRE- SENT | c. SE- LIEVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL- YSES | a. CONCENTRATION | b. MASS | e. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS | | | | | | | | | | | | | | | |
| 1B. Acenaphthene (83-32-9) | | | X | | | | | | | | | | | | |
| 2B. Acenaphtylene (208-96-8) | | | X | | | | | | | | | | | | |
| 3B. Anthracene (120-12-7) | | | X | | | | | | | | | | | | |
| 4B. Benzidine (92-87-5) | | | X | | | | | | | | | | | | |
| 5B. Benzo (a) Anthracene (56-55-3) | | | X | | | | | | | | | | | | |
| 6B. Benzo (a) Pyrene (50-32-8) | | | X | | | | | | | | | | | | |
| 7B. 3,4-Benzo- fluoranthene (205-99-2) | | | X | | | | | | | | | | | | |
| 8B. Benzo (ghi) Perylene (191-24-2) | | | X | | | | | | | | | | | | |
| 9B. Benzo (k) Fluoranthene (207-08-9) | | | X | | | | | | | | | | | | |
| 10B. Bis (2-Chloro- ethoxy) Methane (111-91-1) | | | X | | | | | | | | | | | | |
| 11B. Bis (3-Chloro- ethyl) Ether (111-44-4) | | | X | | | | | | | | | | | | |
| 12B. Bis (2-Chlorois- opropyl) Ether (102-60-1) | | | X | | | | | | | | | | | | |
| 13B. Bis (2-Ethyl- hexyl) Phthalate (117-81-7) | | | X | | | | | | | | | | | | |
| 14B. 4-Bromo- phenyl Phenyl Ether (101-55-3) | | | X | | | | | | | | | | | | |
| 15B. Butyl Benzyl Phthalate (85-68-7) | | | X | | | | | | | | | | | | |
| 16B. 2-Chloro- naphthalene (91-58-7) | | | X | | | | | | | | | | | | |
| 17B. 4-Chloro- phenyl Phenyl Ether (7005-72-3) | | | X | | | | | | | | | | | | |
| 18B. Chrysene (218-01-9) | | | X | | | | | | | | | | | | |
| 19B. Dibenzo (a,h) Anthracene (53-70-3) | | | X | | | | | | | | | | | | |
| 20B. 1,2-Dichloro- benzene (95-50-1) | | | X | | | | | | | | | | | | |
| 21B. 1,3-Dichloro- benzene (541-73-1) | | | X | | | | | | | | | | | | |

CONTINUED FROM PAGE V-6

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | d. NO. OF ANAL- YSES | 4. UNITS | | 5. INTAKE (optional) | | |
|--|---------------------------|-----------------------|----------------------|------------------------|----------|--|----------|--|----------|----------------------|--------------------|---------|----------------------------|----------|----------------------|
| | a. TEST- ING RE- QUIR- ED | b. BELIEVED PRE- SENT | c. BELIEVED AS- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | | a. CONCEN- TRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued) | | | | | | | | | | | | | | | |
| 22B. 1,4-Dichloro- benzene (106-46-7) | | | X | | | | | | | | | | | | |
| 23B. 3,3'-Dichloro- benzidine (91-94-1) | | | X | | | | | | | | | | | | |
| 24B. Diethyl Phthalate (84-66-2) | | | X | | | | | | | | | | | | |
| 25B. Dimethyl Phthalate (131-11-3) | | | X | | | | | | | | | | | | |
| 26B. Di-N-Butyl Phthalate (84-74-2) | | | X | | | | | | | | | | | | |
| 27B. 2,4-Dinitro- toluene (121-14-2) | | | X | | | | | | | | | | | | |
| 28B. 2,6-Dinitro- toluene (606-20-2) | | | X | | | | | | | | | | | | |
| 29B. Di-N-Octyl Phthalate (117-84-0) | | | X | | | | | | | | | | | | |
| 30B. 1,2-Diphenyl- hydrazine (as Azo- benzene) (122-66-7) | | | X | | | | | | | | | | | | |
| 31B. Fluoranthene (206-44-0) | | | X | | | | | | | | | | | | |
| 32B. Fluorene (86-73-7) | | | X | | | | | | | | | | | | |
| 33B. Hexachlorobenzene (118-74-1) | | | X | | | | | | | | | | | | |
| 34B. Hexa- chlorobutadiene (87-68-3) | | | X | | | | | | | | | | | | |
| 35B. Hexachloro- cyclopentadiene (77-47-4) | | | X | | | | | | | | | | | | |
| 36B. Hexachloro- ethane (67-72-1) | | | X | | | | | | | | | | | | |
| 37B. Indeno (1,2,3-cd) Pyrene (193-39-5) | | | X | | | | | | | | | | | | |
| 38B. Isophorone (78-59-1) | | | X | | | | | | | | | | | | |
| 39B. Naphthalene (91-20-3) | | | X | | | | | | | | | | | | |
| 40B. Nitrobenzene (98-95-3) | | | X | | | | | | | | | | | | |
| 41B. N-Nitro- sodimethylamine (62-75-9) | | | X | | | | | | | | | | | | |
| 42B. N-Nitrosodi- N-Propylamine (621-64-7) | | | X | | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER <i>(if available)</i> | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE <i>(optional)</i> | | | |
|--|---------------------------------------|----------------------------------|---------------------------------|------------------------|----------|--|----------|---|----------|----------------------------|------------------|-----------------------------|-------------------------------|----------|----------------------------|
| | a. TEST- ING RE- QUIR- ED | b. BE- LIEVED PRE- SENT | c. BE- LIEVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE <i>(if available)</i> | | c. LONG TERM AVRG. VALUE <i>(if available)</i> | | d. NO. OF ANAL- YSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS <i>(continued)</i> | | | | | | | | | | | | | | | |
| 43B. N-Nitro- sodiphenylamine (86-30-6) | | | X | | | | | | | | | | | | |
| 44B. Phenanthrene (85-01-8) | | | X | | | | | | | | | | | | |
| 45B. Pyrene (129-00-0) | | | X | | | | | | | | | | | | |
| 46B. 1,2,4 - Tri- chlorobenzene (120-82-1) | | | X | | | | | | | | | | | | |
| GC/MS FRACTION – PESTICIDES | | | | | | | | | | | | | | | |
| 1P. Aldrin (309-00-2) | | | X | | | | | | | | | | | | |
| 2P. α -BHC (319-84-6) | | | X | | | | | | | | | | | | |
| 3P. β -BHC (319-85-7) | | | X | | | | | | | | | | | | |
| 4P. γ -BHC (58-89-9) | | | X | | | | | | | | | | | | |
| 5P. δ -BHC (319-86-8) | | | X | | | | | | | | | | | | |
| 6P. Chlordane (57-74-9) | | | X | | | | | | | | | | | | |
| 7P. 4,4'-DDT (50-29-3) | | | X | | | | | | | | | | | | |
| 8P. 4,4'-DDE (72-55-9) | | | X | | | | | | | | | | | | |
| 9P. 4,4'-DDD (72-54-8) | | | X | | | | | | | | | | | | |
| 10P. Dieldrin (60-57-1) | | | X | | | | | | | | | | | | |
| 11P. α -Endosulfan (115-29-7) | | | X | | | | | | | | | | | | |
| 12P. β -Endosulfan (115-29-7) | | | X | | | | | | | | | | | | |
| 13P. Endosulfan Sulfate (1031-07-8) | | | X | | | | | | | | | | | | |
| 14P. Endrin (72-20-8) | | | X | | | | | | | | | | | | |
| 15P. Endrin Aldehyde (7421-93-4) | | | X | | | | | | | | | | | | |
| 16P. Heptachlor (76-44-8) | | | X | | | | | | | | | | | | |

CONTINUED FROM PAGE V-8

Proposed Joint Cannery Outfall

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|---|--------------------------------------|----------------------------------|---------------------------------|------------------------|----------|---|----------|--|----------|----------------------------|------------------|----------------------|-------------------------------|----------|----------------------------|
| | a. TEST ING RE- QUIR- ED | b. BE- LIEVED PRE- SENT | c. BE- LIEVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL- YSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION - PESTICIDES (continued) | | | | | | | | | | | | | | | |
| 17P. Heptachlor Epoxide (1024-57-3) | | | X | | | | | | | | | | | | |
| 18P. PCB-1242 (53469-21-9) | | | X | | | | | | | | | | | | |
| 19P. PCB-1254 (11097-69-1) | | | X | | | | | | | | | | | | |
| 20P. PCB-1221 (11104-28-2) | | | X | | | | | | | | | | | | |
| 21P. PCB-1232 (11141-16-5) | | | X | | | | | | | | | | | | |
| 22P. PCB-1248 (12672-29-6) | | | X | | | | | | | | | | | | |
| 23P. PCB-1260 (11096-82-5) | | | X | | | | | | | | | | | | |
| 24P. PCB-1016 (12674-11-2) | | | X | | | | | | | | | | | | |
| 25P. Toxaphene (8001-35-2) | | | X | | | | | | | | | | | | |

Table 1
FREQUENCY DISTRIBUTION OF EFFLUENT DISCHARGE
StarKist Samoa Inc.

| Cumulative Frequency: Percent of Time Flow is Less Than Tabulated Value | Effluent Discharge Rate (mgd) |
|--|-------------------------------------|
| 1 | 1.04 |
| 5 | 1.27 |
| 10 | 1.41 |
| 25 | 1.63 |
| 50 | 1.83 |
| 75 | 1.95 |
| 90 | 2.00 |
| 95 | 2.10 |
| 100 | 2.61 |

StarKist Samoa, Inc.

Form 2C NPDES Application for Joint Cannery Outfall

NOTES:

- (1) See attached Table 1. for frequency distribution of effluent discharge.
- (2) Treatment by DAF Unit, dissolved air flotation (1-H), involves chemical precipitation of sludge (2-C), with subsequent discharge of effluent to the harbor through an outfall (4-B); sludge from the DAF Unit is combined with precooker water and press water for ocean disposal.
- (3) Average daily production is based on 231 production days for the period August 1990 through July 1991.
- (4) Projected average daily production for the joint cannery outfall for the 5 year term of the NPDES permit.
- (5) Calculation of mass based on daily flow for sample taken on 8/8/91 of 1.195 mgd.
- (6) Calculation of mass based on maximum daily or maximum 30 day average and may not correspond to the maximum daily or maximum 30 day average value for concentration.
- (7) The seasonal temperature variation is insignificant in Pago Pago, American Samoa due to latitude. For comparison purposes the winter months were taken as March through September (months when the average monthly temperature is 29.4°C) for the period of record from August 1990 through July 1991. Summer months were taken as October through February (months when the average monthly temperature is $>30.5^{\circ}\text{C}$) for the period of record from August 1990 through July 1991.
- (8) Color is believed to be present based on visual observations of the effluent discharged.
- (9) Value for the maximum concentration of Nitrate-Nitrite is from a sampling period of 7/10/84 - 7/16/84. Nitrate-Nitrite is present in Pago Pago Harbor water used as intake water. Values for Nitrate-Nitrite are four orders of magnitude smaller than for Total Nitrogen.
- (10) Testing of indicated metals are required under the toxic substance monitoring program for the existing outfall 001, NPDES Permit No. AS0000019.
- (11) Calculation of mass based on flow for sample taken on 10/31/90 as 2.1649 mgd.

Recd 9/3/91



extra copy

September 3, 1991

PDX30702.PA.NP

Mr. Norman L. Lovelace, Chief
Office of Pacific Island and Native American Programs
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Subject: NPDES Permit Application for StarKist Samoa, Inc.
for the New Joint Cannery Outfall, Pago Pago
Harbor, American Samoa

Dear Mr. Lovelace;

Attached is the application for a new NPDES permit for StarKist Samoa, Inc. cannery effluent discharge to the proposed joint cannery outfall in Pago Pago Harbor, American Samoa. I am submitting this NPDES Permit Application on behalf of StarKist Samoa, Inc. The permit application has been signed by Mr. Maurice Callaghan, General Manager, StarKist Samoa, Inc.

This new NPDES Permit application for StarKist Samoa's participation with VCS Samoa Packing Company in the new joint cannery outfall is submitted following the guidance given in your letter of June 20, 1991 to StarKist Samoa, Inc. Since this is a new NPDES application for a proposed discharge facility the old NPDES number AS0000019 has not been used as the EPA I.D. number. It is my understanding that the NPDES permit for the new joint cannery outfall will replace the permit for StarKist Samoa, Inc. outfall 001 since the operation of the existing outfall 001 will be discontinued upon activation of the new joint cannery outfall.

The water quality data summarized in Table V of Form 2C is for the period since the implementation of high strength waste segregation in August 1990. The data cover the period from August 1990 through July 1991. The water quality data presented on NPDES Form 2C was collected as part of the monitoring program established in the NPDES Permit for the existing outfall 001 (AS0000019), and is the same data presented in the Discharge Monitoring Reports (DMR). A special sample was collected to analyze those water quality constituents that are not monitored and reported in the DMR's.

StarKist Samoa, Inc. projects that the average daily production for the cannery will be increasing to 550 tons of tuna. This production value is based on a five year permit period for the NPDES Permit. The water quality data included in Table V of Form 2C is based on actual concentrations and mass loadings are based on flow rates or on actual production where appropriate.

The analyses done for the zone of mixing application (reported in the Technical Memorandum, Appendix B) show no significant relationship between nutrient (Total Nitrogen and Total Phosphorus) loadings and production after the beginning of the high strength waste segregation. The present discharge of oil and grease and total suspended solids (lbs/1000 lbs of seafood) are well below the effluent guideline limitations promulgated under Section 304 of the Clean Water Act (40 CFR 408.142 (a)), Subpart N - Tuna Processing Subcategory. There are also no apparent problems with pH.

The design of the zone of mixing provides for increases in the discharge of nutrients from existing levels. Enhanced initial dilution with the new diffuser location and design will substantially dilute the effluent. Worst case dilutions exceed 350:1 at the edge of the zone of initial dilution (ZID). Relocation of the outfall into the outer harbor area further enhances subsequent (farfield) dilutions. The projected increase in production will fall well within the dilution capability of the zone of mixing for the joint cannery outfall.

Please feel free to contact me at (415) 652-2426 or Mr. Norman Wei, StarKist Seafood Company, (213) 590-3873 if you or your staff have any questions or comments on the NPDES Permit Application.

Sincerely,

CH2M HILL



Steven L. Costa
Project Manager
Enclosure

cc: Sheila Wiegman/ASEPA
Pat Young/USEPA
Norman Wei/StarKist Seafood Company
Maurice Callaghan/StarKist Samoa, Inc.

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| FORM 1 GENERAL | U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION <i>Consolidated Permits Program</i> <i>(Read the "General Instructions" before starting.)</i> | I. EPA I.D. NUMBER <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">S</td> <td style="width:10%;">F</td> <td style="width:10%;">1</td> <td style="width:10%;">2</td> <td style="width:10%;">3</td> <td style="width:10%;">4</td> <td style="width:10%;">5</td> <td style="width:10%;">6</td> <td style="width:10%;">7</td> <td style="width:10%;">8</td> <td style="width:10%;">9</td> <td style="width:10%;">10</td> <td style="width:10%;">11</td> <td style="width:10%;">12</td> <td style="width:10%;">13</td> <td style="width:10%;">14</td> <td style="width:10%;">15</td> </tr> </table> | S | F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| S | F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | |
| LABEL ITEMS <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">I. EPA I.D. NUMBER</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">III. FACILITY NAME</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">V. FACILITY MAILING ADDRESS</div> <div style="border: 1px solid black; padding: 5px;">VI. FACILITY LOCATION</div> | | GENERAL INSTRUCTIONS <p>If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.</p> | | | | | | | | | | | | | | | | | |
| <div style="border: 1px solid black; padding: 20px; min-height: 150px;"> PLEASE PLACE LABEL IN THIS SPACE </div> | | | | | | | | | | | | | | | | | | | |

| II. POLLUTANT CHARACTERISTICS INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms. | | | | | | | | | | | |
|--|----------|----|---------------|--|----------|----|---------------|--|--|--|--|
| SPECIFIC QUESTIONS | MARK 'X' | | | SPECIFIC QUESTIONS | MARK 'X' | | | | | | |
| | YES | NO | FORM ATTACHED | | YES | NO | FORM ATTACHED | | | | |
| A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A) | | X | | B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B) | | X | | | | | |
| C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C) | X | | X | D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D) | | X | | | | | |
| E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3) | | X | | F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4) | | X | | | | | |
| G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4) | | X | | H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4) | | X | | | | | |
| I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | X | | J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | X | | | | | |

| III. NAME OF FACILITY | |
|------------------------------|--------------------------------|
| 1 | SKIP STARKIST SAMOA INC |

| IV. FACILITY CONTACT | |
|--|---|
| A. NAME & TITLE (last, first, & title) 2 CALLAGHAN MAURICE GENERAL MGR | B. PHONE (area code & no.) 684 644 4231 |

| V. FACILITY MAILING ADDRESS | |
|--|---|
| A. STREET OR P.O. BOX 3 P.O. BOX 468 | |
| B. CITY OR TOWN 4 PAGO PAGO, TUTUILA | C. STATE AS D. ZIP CODE 96799 |

| VI. FACILITY LOCATION | |
|---|--|
| A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER 5 | |
| B. COUNTY NAME MAOPUTASI | |
| C. CITY OR TOWN 6 ATU'U | D. STATE AS E. ZIP CODE 96799 F. COUNTY CODE (if known) |

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

| A. FIRST | | | | | | | | | | B. SECOND | | | | | | | | | |
|----------|----|----|----|----|---|---|----|----|----|-----------|---|---|---------------------------------------|--|--|--|--|--|--|
| C | 7 | 2 | 0 | 9 | 1 | (specify) processing and canning of tuna fish | C | 7 | 2 | 0 | 4 | 7 | (specify) Canning of pet food | | | | | | |
| 15 | 16 | 17 | 18 | 19 | | 15 | 16 | 17 | 18 | 19 | | | | | | | | | |
| C. THIRD | | | | | | | | | | D. FOURTH | | | | | | | | | |
| C | 7 | 2 | 0 | 4 | 8 | (specify) processing of fish by-products into fish meal | C | 7 | 3 | 4 | 1 | 1 | (specify) Manufacturing of metal cans | | | | | | |
| 15 | 16 | 17 | 18 | 19 | | 15 | 16 | 17 | 18 | 19 | | | | | | | | | |

VIII. OPERATOR INFORMATION

| A. NAME | | | | | | | | | | | | | | | | | | | | | | | | | B. Is the name listed in Item VIII-A also the owner? | | | | | | | | | | | | | |
|--|----|----|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|-------------|----|----|----|----|--|----|---|----|----|-----------------|----|----|----|---|----|----|--|--|
| C | 8 | S | T | A | R | K | I | S | T | S | A | M | O | A | , | I | N | C | | | | | | | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | | | | | | | | | | | | | |
| C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.) | | | | | | | | | | | | | | | | | | | | | | | | | D. PHONE (area code & no.) | | | | | | | | | | | | | |
| F = FEDERAL S = STATE P = PRIVATE | | | | | | | | | | M = PUBLIC (other than federal or state) O = OTHER (specify) | | | | | | | | | | P (specify) | | | | | C | A | 6 | 8 | 4 | 6 | 4 | 4 | 4 | 2 | 3 | 1 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | | | |
| E. STREET OR P.O. BOX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P O B O X 4 6 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F. CITY OR TOWN | | | | | | | | | | | | | | | | | | | | G. STATE | | | | | H. ZIP CODE | | | | | IX. INDIAN LAND | | | | | | | | |
| C | B | P | A | G | O | P | A | G | O | , | T | U | T | U | I | L | A | | | | | | | | | | A | S | 9 | 6 | 7 | 9 | 9 | Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | | |

X. EXISTING ENVIRONMENTAL PERMITS

| A. NPDES (Discharges to Surface Water) | | | | | | | | | | D. PSD (Air Emissions from Proposed Sources) | | | | | | | | | |
|--|----|----|----|----|----|----|----|----|----|--|----|----|----|----|----|----|----|----|----|
| C | 9 | N | | | | | | | | C | 9 | P | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| B. UIC (Underground Injection of Fluids) | | | | | | | | | | E. OTHER (specify) | | | | | | | | | |
| C | 9 | U | | | | | | | | C | 9 | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| C. RCRA (Hazardous Wastes) | | | | | | | | | | E. OTHER (specify) | | | | | | | | | |
| C | 9 | R | | | | | | | | C | 9 | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |

(specify) Ocean dumping permit for high strength waste

(specify)

XI. MAP

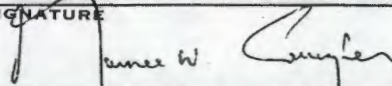
Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

StarKist Samoa, Inc. conducts the processing and canning of tuna fish and other ingredients for human consumption, canning of pet food, the processing of fish by-products into fish meal, and the manufacturing of metal cans used in the production process.

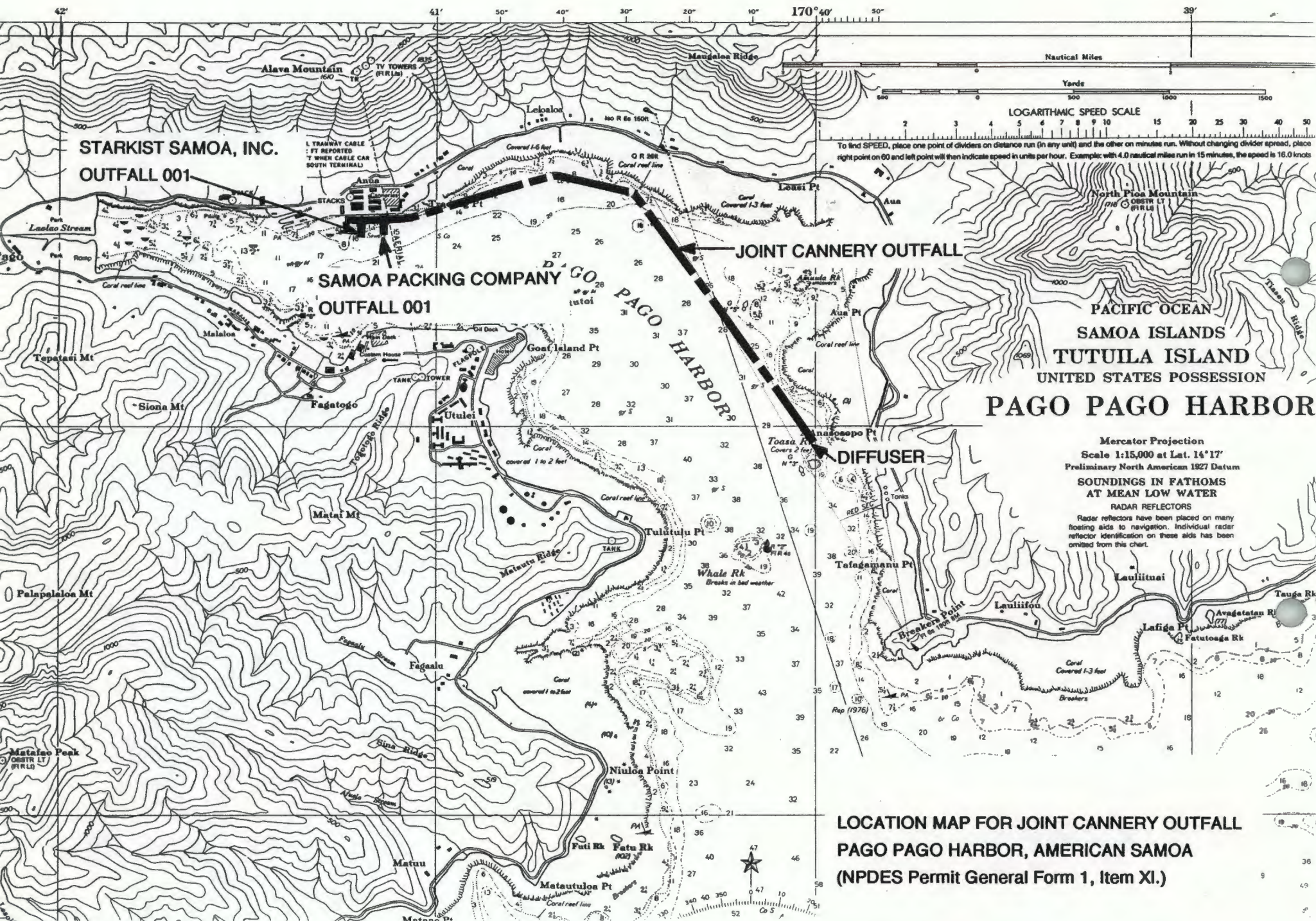
XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

| A. NAME & OFFICIAL TITLE (type or print) | | | | | | | | | | B. SIGNATURE | | | | | | | | | | C. DATE SIGNED | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|--|--|
| Maurice Callaghan General Manager | | | | | | | | | |  | | | | | | | | | | 8.14.91 | | | | | | | | | |

COMMENTS FOR OFFICIAL USE ONLY

| C | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |



**FORM
2C
NPDES**



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

| A. OUTFALL NUMBER (list) | B. LATITUDE | | | C. LONGITUDE | | | D. RECEIVING WATER (name) |
|---|-------------|---------|---------|--------------|---------|---------|---------------------------|
| | 1. DEG. | 2. MIN. | 3. SEC. | 1. DEG. | 2. MIN. | 3. SEC. | |
| Existing | | | | | | | |
| Outfall 001 | 14 S | 16 | 37 | 170 W | 41 | 10 | Pago Pago Harbor |
| | | | | | | | |
| Proposed Joint Cannery Outfall | 14 S | 17 | 01 | 170 W | 40 | 02 | Pago Pago Harbor |
| | | | | | | | |

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

[illegible]

OFFICIAL USE ONLY (effluent guidelines sub-categories)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES (complete the following table)☒ NO (go to Section III)

| 1. OUTFALL NUMBER <i>(list)</i> | 2. OPERATION(s) CONTRIBUTING FLOW <i>(list)</i> | 3. FREQUENCY | | 4. FLOW | | | | | | C. DUR- ATION <i>(in days)</i> |
|---------------------------------------|---|---|---|---------------------------------|---------------------|--|---------------------|--|--|--------------------------------------|
| | | a. DAYS PER WEEK <i>(specify average)</i> | b. MONTHS PER YEAR <i>(specify average)</i> | a. FLOW RATE <i>(in mgd)</i> | | b. TOTAL VOLUME <i>(specify with units)</i> | | | | |
| | | | | 1. LONG TERM AVERAGE. | 2. MAXIMUM DAILY | 1. LONG TERM AVERAGE | 2. MAXIMUM DAILY | | | |
| | | | | | | | | | | |

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES (complete Item III-B)☐ NO (to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☒ YES (complete Item III-C)☐ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

| 1. AVERAGE DAILY PRODUCTION | | | 2. AFFECTED OUTFALLS (list outfall numbers) |
|-----------------------------|---------------------|--|--|
| a. QUANTITY PER DAY | b. UNITS OF MEASURE | c. OPERATION, PRODUCT, MATERIAL, ETC. (specify) | |
| 402 (3) | Tons | Seafood (Tuna) | Existing Outfall 001 and Proposed Joint Cannery Outfall |
| 804 | 1000 lbs | Seafood (Tuna) | |
| <u>PROJECTED PRODUCTION</u> | | | Proposed Joint Cannery Outfall |
| 550 (4) | Tons | Seafood (Tuna) | |
| 1100 | 1000 lbs | Seafood (Tuna) | |

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of waste-water treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☒ YES (complete the following table)☐ NO (go to Item IV-B)

| 1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC. | 2. AFFECTED OUTFALLS | | 3. BRIEF DESCRIPTION OF PROJECT | 4. FINAL COM- PLIANCE DATE | |
|---|----------------------|------------------------|---|-------------------------------|-------------------|
| | a. NO. | b. SOURCE OF DISCHARGE | | a. RE- QUIRED | b. PRO- JECTED |
| American Samoa Government Consent Decree C.A. No. 21-90 | 001 | Cannery Effluent | Compliance requires construction of an 8400 ft. long joint cannery outfall with VCS Samoa Packing Company placed in the outer harbor area of Pago Pago Harbor. Zone of mixing application submitted to American Samoa Environmental Protection Agency | 8/5/92 | 1/7/92 |
| U.S. EPA Order For Compliance Docket No. IX-FY90-22 | 001 | Cannery Effluent | | 8/5/92 | 1/7/92 |

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

V. INTAKE AND EFFLUENT CHARACTERISTICS

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

| 1. POLLUTANT | 2. SOURCE | 1. POLLUTANT | 2. SOURCE |
|--|-----------|--------------|-----------|
| (Not Applicable per Table 2C-3, No toxic pollutants or hazardous substances present in discharge from existing outfall 001 or from proposed joint cannery outfall) | | | |

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

☐ **YES** (list all such pollutants below)

☒ NO (go to Item VI-B)

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (Identify the test(s) and describe their purposes below)

☒ NO (go to Section VIII)

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ NO (go to Section IX)

| A. NAME | B. ADDRESS | C. TELEPHONE (area code & no.) | D. POLLUTANTS ANALYZED (list) |
|---------|---|-----------------------------------|--|
| AECOS | 970 N. Kalaheo Avenue Suite C311 Kailua, HI 96734 | (808) 254-5884 | Pollutants Part A 1a,1b,1c,1d,1e,1i Pollutants Part B 1f,1g,1h,1i Pollutants Part C 4M,5M,7M,8M,13M |

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

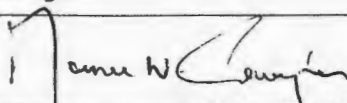
A. NAME & OFFICIAL TITLE (type or print)

Maurice Callaghan
General Manager

B. PHONE NO. (area code & no.)

(684) 644-4231

C. SIGNATURE



D. DATE SIGNED

8-14-91

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO.
-001
-Joint
Cannery

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Outfall

| 1. POLLUTANT | 2. EFFLUENT | | | | | | 3. UNITS (specify if blank) | | 4. INTAKE (optional) | | | |
|------------------------------------|------------------------|----------------------|---|---------------------|--|----------|--------------------------------|--------------------------|----------------------|----------------------------|----------|--------------------|
| | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | (1) | (2) MASS | (1) | (2) MASS | (1) | (2) MASS | | | | (1) | (2) MASS | |
| | CONCENTRATION | | CONCENTRATION | | CONCENTRATION | | | | | CONCENTRATION | | |
| a. Biochemical Oxygen Demand (BOD) | 690 | 6882 ⁽⁵⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| b. Chemical Oxygen Demand (COD) | 1042 | 10392 ⁽⁵⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| c. Total Organic Carbon (TOC) | 274 | 2733 ⁽⁵⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| d. Total Suspended Solids (TSS) | 3.70 | 2085 ⁽⁶⁾ | 2.15 | 1282 ⁽⁶⁾ | 1.29 | 893 | 99 | lbs/ 1000 lbs seafood | lbs/day | | | |
| e. Ammonia (as N) | 78.5 | 783 ⁽⁵⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| f. Flow | VALUE 2.6500 | | VALUE 1.6757 | | VALUE 1.3971 | | 351 | mgd | - | VALUE | | |
| g. Temperature (winter) (7) | VALUE 32.2 | | VALUE 31.1 | | VALUE - | | 212 | °C | | VALUE | | |
| h. Temperature (summer) (7) | VALUE 32.2 | | VALUE 29.4 | | VALUE - | | 139 | °C | | VALUE | | |
| i. pH | MINIMUM 6.5 | MAXIMUM 8.2 | MINIMUM 6.6 | MAXIMUM 7.6 | <div></div> | | 350 | STANDARD UNITS | | <div></div> | | |

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

| 1. POLLUT- ANT AND CAS NO. (if available) | 2. MARK 'X' | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|----------------------------------|---------------------------------|------------------------|----------|---|----------|--|----------|----------------------------|-----------------------|----------------------|-------------------------------|----------|----------------------------|
| | a. BE- LIEVED PRE- SENT | b. BE- LIEVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL- YSES | a. CONCENT- RATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| | | | | | | | | | | | | | | |
| a. Bromide (24959-67-9) | | X | | | | | | | | | | | | |
| b. Chlorine, Total Residual | | X | | | | | | | | | | | | |
| c. Color (8) | X | | | | | | | | | | | | | |
| d. Fecal Colliform | | X | | | | | | | | | | | | |
| e. Fluoride (16984-48-8) | | X | | | | | | | | | | | | |
| f. Nitrate- (9) Nitrite (as N) | X | | 0.017 | - | - | - | - | - | 6 | mg/l | - | | | |

ITEM V-B CONTINUED FROM FRONT

| 1. POLLUTANT AND CAS NO. (if available) | 2. MARK 'X' | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---------------------|--------------------|------------------------|---------------------|---|---------------------|---|----------|--------------------|------------------|---------|----------------------------|----------|--------------------|
| | a. BELIEVED PRESENT | b. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | c. LONG TERM AVERAGE VALUE | | d. NO. OF ANALYSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| | | | | | | | | | | | | | | |
| g. Nitrogen, Total Organic (as N) | X | | 285.0 | 2463 ⁽⁶⁾ | 138.5 | 1481 ⁽⁶⁾ | 82.7 | 1135 | 99 | mg/l | lbs/day | | | |
| h. Oil and Grease | X | | 1.20 | 906 ⁽⁶⁾ | 0.44 | 489 ⁽⁶⁾ | 0.34 | 259 | 100 | lbs/1000 seafood | lbs/day | | | |
| i. Phosphorus (as P), Total (7723-14-0) | X | | 22.9 | 312 ⁽⁶⁾ | 12.2 | 192 ⁽⁶⁾ | 8.8 | 123 | 99 | mg/l | lbs/day | | | |
| j. Radioactivity | | | | | | | | | | | | | | |
| (1) Alpha, Total | | X | | | | | | | | | | | | |
| (2) Beta, Total | | X | | | | | | | | | | | | |
| (3) Radium, Total | | X | | | | | | | | | | | | |
| (4) Radium 226, Total | | X | | | | | | | | | | | | |
| k. Sulfate (as SO ₄) (14808-79-8) | | X | | | | | | | | | | | | |
| l. Sulfide (as S) | | X | | | | | | | | | | | | |
| m. Sulfite (as SO ₃) (14265-45-3) | | X | | | | | | | | | | | | |
| n. Surfactants | | X | | | | | | | | | | | | |
| o. Aluminum, Total (7429-90-5) | | X | | | | | | | | | | | | |
| p. Barium, Total (7440-39-3) | | X | | | | | | | | | | | | |
| q. Boron, Total (7440-42-8) | | X | | | | | | | | | | | | |
| r. Cobalt, Total (7440-48-4) | | X | | | | | | | | | | | | |
| s. Iron, Total (7439-89-6) | | X | | | | | | | | | | | | |
| t. Magnesium, Total (7439-95-4) | | X | | | | | | | | | | | | |
| u. Molybdenum, Total (7439-98-7) | | X | | | | | | | | | | | | |
| v. Manganese, Total (7439-96-5) | | X | | | | | | | | | | | | |
| w. Tin, Total (7440-31-5) | | X | | | | | | | | | | | | |
| x. Titanium, Total (7440-32-6) | | X | | | | | | | | | | | | |

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|------------------------|-----------------------|----------------------|------------------------|----------------------|--|----------|---|----------|----------------------|--------------------|----------------------|----------------------------|----------|----------------------|
| | a. TEST-ING RE-QUIR-ED | b. BE-LIEVED PRE-SENT | c. BE-LIEVED AB-SENT | 8. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL- YSES | a. CONCEN- TRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| METALS, CYANIDE, AND TOTAL PHENOLS | | | | | | | | | | | | | | | |
| 1M. Antimony, Total (7440-36-0) | | | X | | | | | | | | | | | | |
| 2M. Arsenic, Total (7440-38-2) | | | X | | | | | | | | | | | | |
| 3M. Beryllium, Total, 7440-41-7) | | | X | | | | | | | | | | | | |
| 4M. Cadmium, (10) Total (7440-43-9) | X | | | 0.024 | 0.43 ⁽¹¹⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| 5M. Chromium, (10) Total (7440-47-3) | X | | | 0.04 | 0.7 ⁽¹¹⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| 6M. Copper, Total (7440-50-8) | | | X | | | | | | | | | | | | |
| 7M. Lead, Total (7439-92-1) (10) | X | | | 0.10 | 1.8 ⁽¹¹⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| 8M. Mercury, Total (7439-97-6) (10) | X | | | 0.002 | 0.04 ⁽¹¹⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| 9M. Nickel, Total (7440-02-0) | | | X | | | | | | | | | | | | |
| 10M. Selenium, Total (7782-49-2) | | | X | | | | | | | | | | | | |
| 11M. Silver, Total (7440-22-4) | | | X | | | | | | | | | | | | |
| 12M. Thallium, Total (7440-28-0) | | | X | | | | | | | | | | | | |
| 13M. Zinc, Total (7440-66-6) (10) | X | | | 0.32 | 5.8 ⁽¹¹⁾ | - | - | - | - | 1 | mg/l | lbs/day | | | |
| 14M. Cyanide, Total (57-12-5) | | | X | | | | | | | | | | | | |
| 15M. Phenols, Total | | | X | | | | | | | | | | | | |
| DIOXIN | | | | | | | | | | | | | | | |
| 2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6) | | | X | DESCRIBE RESULTS | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|---|--------------------------------------|----------------------------------|---------------------------------|------------------------|----------|---|----------|--|----------|----------------------------|------------------|----------------------|-------------------------------|----------|----------------------------|
| | a. TEST ING RE- QUIR- ED | b. SE- LIEVED PRE- SENT | c. SE- LIEVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL- YSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION - VOLATILE COMPOUNDS | | | | | | | | | | | | | | | |
| 1V. Acrolein (107-02-8) | | | X | | | | | | | | | | | | |
| 2V. Acrylonitrile (107-13-1) | | | X | | | | | | | | | | | | |
| 3V. Benzene (71-43-2) | | | X | | | | | | | | | | | | |
| 4V. Bis (Chloro- methyl) Ether (542-88-1) | | | X | | | | | | | | | | | | |
| 5V. Bromoform (75-25-2) | | | X | | | | | | | | | | | | |
| 6V. Carbon Tetrachloride (56-23-5) | | | X | | | | | | | | | | | | |
| 7V. Chlorobenzene (108-90-7) | | | X | | | | | | | | | | | | |
| 8V. Chlorodi- bromomethane (124-48-1) | | | X | | | | | | | | | | | | |
| 9V. Chloroethane (75-00-3) | | | X | | | | | | | | | | | | |
| 10V. 2-Chloro- ethylvinyl Ether (110-75-8) | | | X | | | | | | | | | | | | |
| 11V. Chloroform (67-66-3) | | | X | | | | | | | | | | | | |
| 12V. Dichloro- bromomethane (75-27-4) | | | X | | | | | | | | | | | | |
| 13V. Dichloro- difluoromethane (75-71-8) | | | X | | | | | | | | | | | | |
| 14V. 1,1-Dichloro- ethane (75-34-3) | | | X | | | | | | | | | | | | |
| 15V. 1,2-Dichloro- ethane (107-06-2) | | | X | | | | | | | | | | | | |
| 16V. 1,1-Dichloro- ethylene (75-35-4) | | | X | | | | | | | | | | | | |
| 17V. 1,2-Dichloro- propane (78-87-5) | | | X | | | | | | | | | | | | |
| 18V. 1,3-Dichloro- propylene (542-75-6) | | | X | | | | | | | | | | | | |
| 19V. Ethylbenzene (100-41-4) | | | X | | | | | | | | | | | | |
| 20V. Methyl Bromide (74-83-9) | | | X | | | | | | | | | | | | |
| 21V. Methyl Chloride (74-87-3) | | | X | | | | | | | | | | | | |

CONTINUED FROM PAGE V-4

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|------------------------------------|----------------------------------|---------------------------------|------------------------|----------|---|----------|--|----------|----------------------------|-----------------------|----------------------|-------------------------------|----------|----------------------------|
| | a. TEST- ING RE- QUIR- ED | b. BE- LIEVED PRE- SENT | c. BE- LIEVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL- YSES | a. CONCEN- TRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION - VOLATILE COMPOUNDS (continued) | | | | | | | | | | | | | | | |
| 22V. Methylene Chloride (75-09-2) | | | X | | | | | | | | | | | | |
| 23V. 1,1,2,2-Tetra- chloroethane (79-34-5) | | | X | | | | | | | | | | | | |
| 24V. Tetrachloro- ethylene (127-18-4) | | | X | | | | | | | | | | | | |
| 25V. Toluene (108-88-3) | | | X | | | | | | | | | | | | |
| 26V. 1,2-Trans- Dichloroethylene (156-60-5) | | | X | | | | | | | | | | | | |
| 27V. 1,1,1-Tri- chloroethane (71-55-6) | | | X | | | | | | | | | | | | |
| 28V. 1,1,2-Tri- chloroethane (79-00-5) | | | X | | | | | | | | | | | | |
| 29V. Trichloro- ethylene (79-01-6) | | | X | | | | | | | | | | | | |
| 30V. Trichloro- fluoromethane (75-69-4) | | | X | | | | | | | | | | | | |
| 31V. Vinyl Chloride (75-01-4) | | | X | | | | | | | | | | | | |
| GC/MS FRACTION - ACID COMPOUNDS | | | | | | | | | | | | | | | |
| 1A. 2-Chlorophenol (95-57-8) | | | X | | | | | | | | | | | | |
| 2A. 2,4-Dichloro- phenol (120-83-2) | | | X | | | | | | | | | | | | |
| 3A. 2,4-Dimethyl- phenol (105-67-9) | | | X | | | | | | | | | | | | |
| 4A. 4,6-Dinitro-O- Cresol (534-52-1) | | | X | | | | | | | | | | | | |
| 5A. 2,4-Dinitro- phenol (51-28-5) | | | X | | | | | | | | | | | | |
| 6A. 2-Nitrophenol (88-75-5) | | | X | | | | | | | | | | | | |
| 7A. 4-Nitrophenol (100-02-7) | | | X | | | | | | | | | | | | |
| 8A. P-Chloro-M- Cresol (59-50-7) | | | X | | | | | | | | | | | | |
| 9A. Pentachloro- phenol (87-86-5) | | | X | | | | | | | | | | | | |
| 10A. Phenol (108-95-2) | | | X | | | | | | | | | | | | |
| 11A. 2,4,6-Tri- chlorophenol (88-06-2) | | | X | | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | d. NO. OF ANAL- YSES | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|---------------------------------------|----------------------------------|---------------------------------|------------------------|----------|---|----------|--|----------|----------------------------|-----------------------|---------|-------------------------------|----------|----------------------------|--|
| | a. TEST- ING RE- QUIR- ED | b. BE- LIEVED PRE- SENT | c. BE- LIEVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | | a. CONCEN- TRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES | |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCEN- TRATION | (2) MASS | | |
| GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS | | | | | | | | | | | | | | | | |
| 1B. Acenaphthene (83-32-9) | | | X | | | | | | | | | | | | | |
| 2B. Acenaphthylene (208-96-8) | | | X | | | | | | | | | | | | | |
| 3B. Anthracene (120-12-7) | | | X | | | | | | | | | | | | | |
| 4B. Benzidine (92-87-5) | | | X | | | | | | | | | | | | | |
| 5B. Benzo (a) Anthracene (56-55-3) | | | X | | | | | | | | | | | | | |
| 6B. Benzo (a) Pyrene (50-32-8) | | | X | | | | | | | | | | | | | |
| 7B. 3,4-Benzo- fluoranthene (205-99-2) | | | X | | | | | | | | | | | | | |
| 8B. Benzo (ghi) Perylene (191-24-2) | | | X | | | | | | | | | | | | | |
| 9B. Benzo (k) Fluoranthene (207-08-9) | | | X | | | | | | | | | | | | | |
| 10B. Bis (2-Chloro- ethoxy) Methane (111-91-1) | | | X | | | | | | | | | | | | | |
| 11B. Bis (2-Chloro- ethyl) Ether (111-44-4) | | | X | | | | | | | | | | | | | |
| 12B. Bis (2-Chloroiso- propyl) Ether (102-60-1) | | | X | | | | | | | | | | | | | |
| 13B. Bis (2-Ethyl- hexyl) Phthalate (117-81-7) | | | X | | | | | | | | | | | | | |
| 14B. 4-Bromo- phenyl Phenyl Ether (101-55-3) | | | X | | | | | | | | | | | | | |
| 15B. Butyl Benzyl Phthalate (85-68-7) | | | X | | | | | | | | | | | | | |
| 16B. 2-Chloro- naphthalene (91-58-7) | | | X | | | | | | | | | | | | | |
| 17B. 4-Chloro- phenyl Phenyl Ether (7005-72-3) | | | X | | | | | | | | | | | | | |
| 18B. Chrysene (218-01-9) | | | X | | | | | | | | | | | | | |
| 19B. Dibenzo (a,h) Anthracene (53-70-3) | | | X | | | | | | | | | | | | | |
| 20B. 1,2-Dichloro- benzene (95-50-1) | | | X | | | | | | | | | | | | | |
| 21B. 1,3-Dichloro- benzene (541-73-1) | | | X | | | | | | | | | | | | | |

EPA I.D. NUMBER (copy from Item 1 of Form 1) **OUTFALL NUMBER**
Existing Outfall 001
Proposed Joint Cannery Outfall

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

CONTINUED FROM PAGE V-6

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|------------------------|-----------------------|----------------------|------------------------|----------|---|----------|--|----------|---------------------|-------------------|----------------------|----------------------------|----------|---------------------|
| | a. TEST-ING RE-QUIR-ED | b. SE-LIEVED PRE-SENT | c. SE-LIEVED AB-SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL-YSES | a. CONCEN-TRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL-YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued) | | | | | | | | | | | | | | | |
| 22B. 1,4-Dichloro-benzene (106-46-7) | | | X | | | | | | | | | | | | |
| 23B. 3,3'-Dichloro-benzidine (91-94-1) | | | X | | | | | | | | | | | | |
| 24B. Diethyl Phthalate (84-66-2) | | | X | | | | | | | | | | | | |
| 25B. Dimethyl Phthalate (131-11-3) | | | X | | | | | | | | | | | | |
| 26B. Di-N-Butyl Phthalate (84-74-2) | | | X | | | | | | | | | | | | |
| 27B. 2,4-Dinitro-toluene (121-14-2) | | | X | | | | | | | | | | | | |
| 28B. 2,6-Dinitro-toluene (606-20-2) | | | X | | | | | | | | | | | | |
| 29B. Di-N-Octyl Phthalate (117-84-0) | | | X | | | | | | | | | | | | |
| 30B. 1,2-Diphenyl-hydrazine (as Azo-benzene) (122-66-7) | | | X | | | | | | | | | | | | |
| 31B. Fluoranthene (206-44-0) | | | X | | | | | | | | | | | | |
| 32B. Fluorene (86-73-7) | | | X | | | | | | | | | | | | |
| 33B. Hexachlorobenzene (118-74-1) | | | X | | | | | | | | | | | | |
| 34B. Hexa-chlorobutadiene (87-68-3) | | | X | | | | | | | | | | | | |
| 35B. Hexachloro-cyclopentadiene (77-47-4) | | | X | | | | | | | | | | | | |
| 36B. Hexachloro-ethane (67-72-1) | | | X | | | | | | | | | | | | |
| 37B. Indeno (1,2,3-cd) Pyrene (193-39-5) | | | X | | | | | | | | | | | | |
| 38B. Isophorone (78-59-1) | | | X | | | | | | | | | | | | |
| 39B. Naphthalene (91-20-3) | | | X | | | | | | | | | | | | |
| 40B. Nitrobenzene (98-95-3) | | | X | | | | | | | | | | | | |
| 41B. N-Nitro-sodimethylamine (62-75-9) | | | X | | | | | | | | | | | | |
| 42B. N-Nitrosodi-N-Propylamine (62-75-7) | | | X | | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | 4. UNITS | | 5. INTAKE (optional) | | | | |
|---|---------------------------------------|----------------------------------|---------------------------------|------------------------|----------|---|----------|--|----------|----------------------------|----------------------|---------|-------------------------------|----------|----------------------------|
| | a. TEST- ING RE- QUIR- ED | b. BE- LIEVED PRE- SENT | c. BE- LIEVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL- YSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued) | | | | | | | | | | | | | | | |
| 43B. N-Nitro- sodiphenylamine (86-30-6) | | | X | | | | | | | | | | | | |
| 44B. Phenanthrene (85-01-8) | | | X | | | | | | | | | | | | |
| 45B. Pyrene (129-00-0) | | | X | | | | | | | | | | | | |
| 46B. 1,2,4 - Tri- chlorobenzene (120-82-1) | | | X | | | | | | | | | | | | |
| GC/MS FRACTION – PESTICIDES | | | | | | | | | | | | | | | |
| 1P. Aldrin (309-00-2) | | | X | | | | | | | | | | | | |
| 2P. α -BHC (319-84-6) | | | X | | | | | | | | | | | | |
| 3P. β -BHC (319-85-7) | | | X | | | | | | | | | | | | |
| 4P. γ -BHC (58-89-9) | | | X | | | | | | | | | | | | |
| 5P. δ -BHC (319-86-8) | | | X | | | | | | | | | | | | |
| 6P. Chlordane (57-74-9) | | | X | | | | | | | | | | | | |
| 7P. 4,4'-DDT (50-29-3) | | | X | | | | | | | | | | | | |
| 8P. 4,4'-DDE (72-55-9) | | | X | | | | | | | | | | | | |
| 9P. 4,4'-DDD (72-54-8) | | | X | | | | | | | | | | | | |
| 10P. Dieldrin (60-57-1) | | | X | | | | | | | | | | | | |
| 11P. α -Endosulfan (115-29-7) | | | X | | | | | | | | | | | | |
| 12P. β -Endosulfan (115-29-7) | | | X | | | | | | | | | | | | |
| 13P. Endosulfan Sulfate (1031-07-8) | | | X | | | | | | | | | | | | |
| 14P. Endrin (72-20-8) | | | X | | | | | | | | | | | | |
| 15P. Endrin Aldehyde (7421-93-4) | | | X | | | | | | | | | | | | |
| 16P. Heptachlor (76-44-8) | | | X | | | | | | | | | | | | |

EPA I.D. NUMBER (copy from Item 1 of Form 1)

OUTFALL NUMBER
Existing Outfall 001

Form Approved.

OMB No. 2040-0086

Approval expires 7-31-88

CONTINUED FROM PAGE V-8

Proposed Joint Cannery Outfall

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|---|------------------------------------|----------------------------------|---------------------------------|------------------------|----------|---|----------|--|----------|----------------------------|-----------------------|----------------------|-------------------------------|----------|----------------------------|
| | a. TEST- ING RE- QUIR- ED | b. BE- LIEVED PRE- SENT | c. BE- LIEVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANAL- YSES | a. CONCEN- TRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCEN- TRATION | (2) MASS | |
| GC/MS FRACTION - PESTICIDES (continued) | | | | | | | | | | | | | | | |
| 17P. Heptachlor Epoxide (1024-57-3) | | | X | | | | | | | | | | | | |
| 18P. PCB-1242 (53469-21-9) | | | X | | | | | | | | | | | | |
| 19P. PCB-1254 (11097-69-1) | | | X | | | | | | | | | | | | |
| 20P. PCB-1221 (11104-28-2) | | | X | | | | | | | | | | | | |
| 21P. PCB-1232 (11141-16-5) | | | X | | | | | | | | | | | | |
| 22P. PCB-1248 (12672-29-6) | | | X | | | | | | | | | | | | |
| 23P. PCB-1260 (11096-82-5) | | | X | | | | | | | | | | | | |
| 24P. PCB-1016 (12674-11-2) | | | X | | | | | | | | | | | | |
| 25P. Toxaphene (8001-35-2) | | | X | | | | | | | | | | | | |

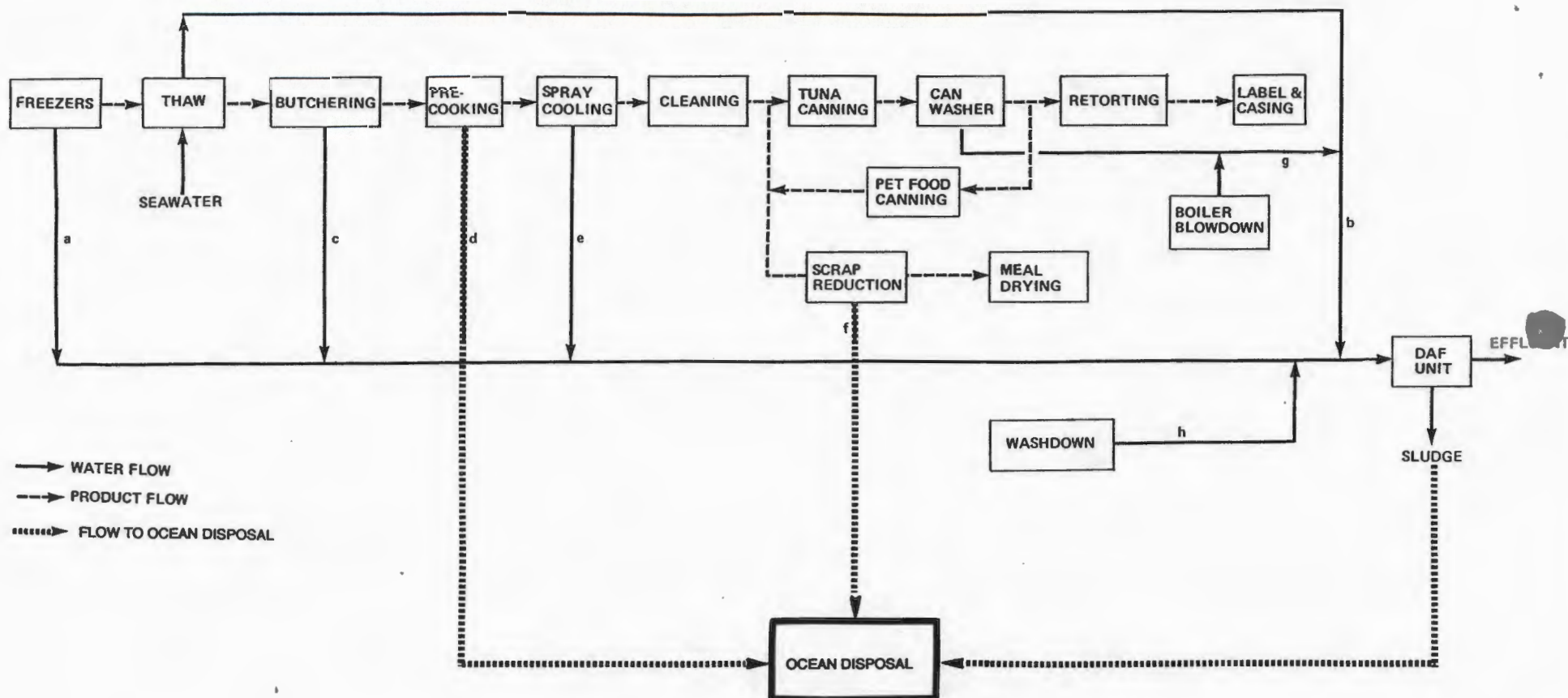
PAGE V-9

NOTES:

- (1) See attached Table 1. for frequency distribution of effluent discharge.
- (2) Treatment by DAF Unit, dissolved air flotation (1-H), involves chemical precipitation of sludge (2-C), with subsequent discharge of effluent to the harbor through an outfall (4-B); sludge from the DAF Unit is combined with precooker water and press water for ocean disposal.
- (3) Average daily production is based on 231 production days for the period August 1990 through July 1991.
- (4) Projected average daily production for the joint cannery outfall for the 5 year term of the NPDES permit.
- (5) Calculation of mass based on daily flow for sample taken on 8/8/91 of 1.195 mgd.
- (6) Calculation of mass based on maximum daily or maximum 30 day average and may not correspond to the maximum daily or maximum 30 day average value for concentration.
- (7) The seasonal temperature variation is insignificant in Pago Pago, American Samoa due to latitude. For comparison purposes the winter months were taken as March through September (months when the average monthly temperature is 29.4°C) for the period of record from August 1990 through July 1991. Summer months were taken as October through February (months when the average monthly temperature is $>30.5^{\circ}\text{C}$) for the period of record from August 1990 through July 1991.
- (8) Color is believed to be present based on visual observations of the effluent discharged.
- (9) Value for the maximum concentration of Nitrate-Nitrite is from a sampling period of 7/10/84 - 7/16/84. Nitrate-Nitrite is present in Pago Pago Harbor water used as intake water. Values for Nitrate-Nitrite are four orders of magnitude smaller than for Total Nitrogen.
- (10) Testing of indicated metals are required under the toxic substance monitoring program for the existing outfall 001, NPDES Permit No. AS0000019.
- (11) Calculation of mass based on flow for sample taken on 10/31/90 as 2.1649 mgd.

Table 1
FREQUENCY DISTRIBUTION OF EFFLUENT DISCHARGE
StarKist Samoa Inc.

| Cumulative Frequency: Percent of Time Flow is Less Than Tabulated Value | Effluent Discharge Rate (mgd) |
|--|-------------------------------------|
| 1 | 1.04 |
| 5 | 1.27 |
| 10 | 1.41 |
| 25 | 1.63 |
| 50 | 1.83 |
| 75 | 1.95 |
| 90 | 2.00 |
| 95 | 2.10 |
| 100 | 2.61 |



WATER FLOW DIAGRAM
STARKIST SAMOA, INC.
(NPDES Permit Form 2C, Item IIA.)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, Ca. 94105

June 20, 1991

Maurice Callaghan
General Manager
Star-Kist Samoa
P.O. Box 468
Pago Pago, American Samoa 96799

Dear Mr. Callaghan:

In recent conversations with you and your staff, we discussed the upcoming National Pollution Discharge Elimination System (NPDES) permit application which your company is required to submit 180 days prior to the expiration of your present NPDES permit (AS0000027). Based on these conversations and your letter of May 1, 1991, it is our understanding that Star-Kist Samoa and VCS Samoa Packing will be constructing a new joint marine outfall approximately 7,000 feet from the canneries toward the mouth of Pago Pago Harbor in order to meet American Samoa water quality standards by March 3, 1992. Thus new NPDES permits for both canneries' discharge from the new outfall will be required. In our discussions with you, we committed to following up with further guidance on applying for a joint outfall NPDES permit application, monitoring requirements, effluent limits and determination of violations and liability, etc.

Issuance of an NPDES permit by the U.S. Environmental Protection Agency (USEPA) for the joint outfall must be preceded by the granting of a zone of mixing by the American Samoa environmental Quality Commission (ASEQC), which must also be approved by USEPA. Thus we urge you to submit your zone of mixing application to the ASEQC and us as soon as possible. After obtaining a zone of mixing, each cannery should submit a separate NPDES permit application for its discharge into the joint pipeline at least 180 days prior to March 3, 1992. (We suggest submitting the application to us at the earliest date possible.) Based on the USEPA's analysis of the data in each permit application, past Discharge Monitoring Reports (DMR's) and other appropriate data, USEPA will issue a separate NPDES permit to each

cannery which will establish separate effluent discharge limits for each cannery at a point prior to the effluent's entry into the joint pipeline.

Each cannery will be responsible for monitoring and complying with its effluent limits at the point of entry into the pipeline. The permits will establish joint and severable responsibility of the canneries for achieving water quality standards in Pago Pago Harbor. They will also require implementation of an ambient monitoring program to measure the impact of the discharge on Pago Pago Harbor and insure that water quality standards are being met. The permits will not specify who will carry out the ambient monitoring program and will leave that up to the canneries. Again, both canneries will be jointly and severably responsible for carrying out the ambient monitoring program.

Water quality violations will be assessed utilizing data from the water quality monitoring program and the canneries' individual DMR's. Legally, both canneries will be liable and subject to enforcement action for any water quality standards violations which occur from the outfall discharge. As a matter of allocating responsibility for water quality standard violations between the canneries, USEPA, and thus the canneries, will generally consider the nature of each cannery's discharge. In the case where only one cannery's effluent exceeds its effluent discharge limits and the monitoring data shows violation of the relevant water quality standards, the determination of responsibility can be clearly made. If both canneries have violations of their effluent limits and water quality violations also occur, then both canneries are properly responsible. If neither cannery has effluent limit violations but water quality violations still occur, both canneries are still responsible.

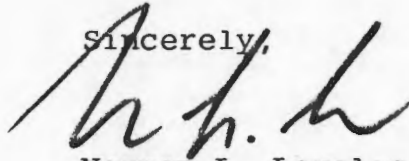
We hope the above information is helpful. As we had discussed, we reviewed other NPDES permits issued for joint outfalls to see if they would be useful in giving you some idea of the joint responsibilities which can be imposed. Copies of these permits are included. In these particular cases, a joint agency was established with an NPDES permit for the joint outfall in addition to separate permits for each discharger). However, we do not have copies of the legal agreements among the agencies outlining their obligations and responsibilities to the overall joint agency established. We suggest you contact these agencies directly for such information.

Also enclosed are copies of the NPDES application forms (Form 1C and 2C) for your use.

We urge you and your staff to stay in close contact with our office and the ASEPA regarding local and federal requirements. Your applications should be submitted as early as possible to

give our agencies time to review them and request more information if necessary. Should you or your staff have any further questions, please contact Pat Young, (415) 744-1591 or Mike Lee, (415) 744-1592.

Sincerely,

A handwritten signature in dark ink, appearing to read 'N. L. Lovelace', written in a cursive style.

Norman L. Lovelace
Chief, Office of Pacific Island
and Native American Programs

Enclosures

cc: Pati Faiai, ASEPA (w/o enclosures)
Sheila Wiegman, ASEPA
Norman Wei, Star-Kist
Steve Costa, CH2MHill

June 20, 1991

Maurice Callaghan
General Manager
Star-Kist Samoa
P.O. Box 468
Pago Pago, American Samoa 96799

Dear Mr. Callaghan:

In recent conversations with you and your staff, we discussed the upcoming National Pollution Discharge Elimination System (NPDES) permit application which your company is required to submit 180 days prior to the expiration of your present NPDES permit (AS0000027). Based on these conversations and your letter of May 1, 1991, it is our understanding that Star-Kist Samoa and VCS Samoa Packing will be constructing a new joint marine outfall approximately 7,000 feet from the canneries toward the mouth of Pago Pago Harbor in order to meet American Samoa water quality standards by March 3, 1992. Thus new NPDES permits for both canneries' discharge from the new outfall will be required. In our discussions with you, we committed to following up with further guidance on applying for a joint outfall NPDES permit application, monitoring requirements, effluent limits and determination of violations and liability, etc.

Issuance of an NPDES permit by the U.S. Environmental Protection Agency (USEPA) for the joint outfall must be preceded by the granting of a zone of mixing by the American Samoa environmental Quality Commission (ASEQC), which must also be approved by USEPA. Thus we urge you to submit your zone of mixing application to the ASEQC and us as soon as possible. After obtaining a zone of mixing, each cannery should submit a separate NPDES permit application for its discharge into the joint pipeline at least 180 days prior to March 3, 1992. (We suggest submitting the application to us at the earliest date possible.) Based on the USEPA's analysis of the data in each permit application, past Discharge Monitoring Reports (DMR's) and other appropriate data, USEPA will issue a separate NPDES permit to each

| | | | | | | |
|-----------------------|--------------|--|--|--------------------|--|--|
| SYMBOL | E-4 | | | | | |
| SURNAME | <i>mpung</i> | | | | | |
| DATE | 6/22/91 | | | | | |
| U.S. EPA CONCURRENCES | | | | OFFICIAL FILE COPY | | |

June 20, 1991

Maurice Callaghan
General Manager
Star-Kist Samoa
P.O. Box 468
Pago Pago, American Samoa 96799

Dear Mr. Callaghan:

In recent conversations with you and your staff, we discussed the upcoming National Pollution Discharge Elimination System (NPDES) permit application which your company is required to submit 180 days prior to the expiration of your present NPDES permit (AS0000027). Based on these conversations and your letter of May 1, 1991, it is our understanding that Star-Kist Samoa and VCS Samoa Packing will be constructing a new joint marine outfall approximately 7,000 feet from the canneries toward the mouth of Pago Pago Harbor in order to meet American Samoa water quality standards by March 3, 1992. Thus new NPDES permits for both canneries' discharge from the new outfall will be required. In our discussions with you, we committed to following up with further guidance on applying for a joint outfall NPDES permit application, monitoring requirements, effluent limits and determination of violations and liability, etc.

Issuance of an NPDES permit by the U.S. Environmental Protection Agency (USEPA) for the joint outfall must be preceded by the granting of a zone of mixing by the American Samoa Environmental Quality Commission (ASEQC), which must also be approved by USEPA. Thus we urge you to submit your zone of mixing application to the ASEQC and us as soon as possible. After obtaining a zone of mixing, each cannery should submit a separate NPDES permit application for its discharge into the joint pipeline at least 180 days prior to March 3, 1992. (We suggest submitting the application to us at the earliest date possible.) Based on the USEPA's analysis of the data in each permit application, past Discharge Monitoring Reports (DMR's) and other appropriate data, USEPA will issue a separate NPDES permit to each

cannery which will establish separate effluent discharge limits for each cannery at a point prior to the effluent's entry into the joint pipeline.

Each cannery will be responsible for monitoring and complying with its effluent limits at the point of entry into the pipeline. The permits will establish joint and severable responsibility of the canneries for achieving water quality standards in Pago Pago Harbor. They will also require implementation of an ambient monitoring program to measure the impact of the discharge on Pago Pago Harbor and insure that water quality standards are being met. The permits will not specify who will carry out the ambient monitoring program and will leave that up to the canneries. Again, both canneries will be jointly and severably responsible for carrying out the ambient monitoring program.

Water quality violations will be assessed utilizing data from the water quality monitoring program and the canneries' individual DMR's. Legally, both canneries will be liable and subject to enforcement action for any water quality standards violations which occur from the outfall discharge. As a matter of allocating responsibility for water quality standard violations between the canneries, USEPA, and thus the canneries, will generally consider the nature of each cannery's discharge. In the case where only one cannery's effluent exceeds its effluent discharge limits and the monitoring data shows violation of the relevant water quality standards, the determination of responsibility can be clearly made. If both canneries have violations of their effluent limits and water quality violations also occur, then both canneries are properly responsible. If neither cannery has effluent limit violations but water quality violations still occur, both canneries are still responsible.

We hope the above information is helpful. As we had discussed, we reviewed other NPDES permits issued for joint outfalls to see if they would be useful in giving you some idea of the joint responsibilities which can be imposed. Copies of these permits are included. In these particular cases, a joint agency was established with an NPDES permit for the joint outfall in addition to separate permits for each discharger). However, we do not have copies of the legal agreements among the agencies outlining their obligations and responsibilities to the overall joint agency established. We suggest you contact these agencies directly for such information.

Also enclosed are copies of the NPDES application forms (Form 1C and 2C) for your use.

We urge you and your staff to stay in close contact with our office and the ASEPA regarding local and federal requirements. Your applications should be submitted as early as possible to

give our agencies time to review them and request more information if necessary. Should you or your staff have any further questions, please contact Pat Young, (415) 744-1591 or Mike Lee, (415) 744-1592.

Sincerely,

Norman L. Lovelace
Chief, Office of Pacific Island
and Native American Programs

Enclosures

cc: Pati Faiai, ASEPA (w/o enclosures)
Sheila Wiegman, ASEPA
Norman Wei, Star-Kist
Steve Costa, CH2MHill

bc: Bill Pierce (w-5)

Permits Division



Application Form 2C - Wastewater Discharge Information

Consolidated Permits Program

This form must be completed by all persons applying for an EPA permit to discharge wastewater (*existing manufacturing, commercial, mining, and silvicultural operations*).

INSTRUCTIONS — FORM 2c
Application for Permit to Discharge Wastewater
EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL OPERATIONS

This form must be completed by all applicants who check "yes" to item II-C in Form 1.

Public Availability of Submitted Information.

Your application will not be considered complete unless you answer every question on this form and on Form 1. If an item does not apply to you, enter "NA" (for not applicable) to show that you considered the question.

You may not claim as confidential any information required by this form or Form 1, whether the information is reported on the forms or in an attachment. This information will be made available to the public upon request.

Any information you submit to EPA which goes beyond that required by this form or Form 1 you may claim as confidential, but claims for information which is effluent data will be denied. If you do not assert a claim of confidentiality at the time of submitting the information, EPA may make the information public without further notice to you. Claims of confidentiality will be handled in accordance with EPA's business confidentiality regulations at 40 CFR Part 2.

Definitions

All significant terms used in these instructions and in the form are defined in the glossary found in the General Instructions which accompany Form 1.

EPA ID Number

Fill in your EPA Identification Number at the top of each page of Form 2c. You may copy this number directly from item I of Form 1.

Item I

You may use the map you provided for item XI of Form 1 to determine the latitude and longitude of each of your outfalls and the name of the receiving water.

Item II-A

The line drawing should show generally the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas, sanitary flows, cooling water, and stormwater runoff. You may group similar operations into a single unit, labeled to correspond to the more detailed listing in item II-B. The water balance should show average flows. Show all significant losses of water to products, atmosphere, and discharge. You should use actual measurements whenever available; otherwise use your best estimate. An example of an acceptable line drawing appears in Figure 2c-1 to these instructions.

Item II-B

List all sources of wastewater to each outfall. Operations may be described in general terms (for example, "dye-making reactor" or "distillation tower"). You may estimate the flow contributed by each source if no data are available. For stormwater discharges you may estimate the average flow, but you must indicate the rainfall event upon which the estimate is based and the method of estimation. For each treatment unit, indicate its size, flow rate, and retention time, and describe the ultimate disposal of any solid or liquid wastes not discharged. Treatment units should be listed in order and you should select the proper code from Table 2c-1 to fill in column 3-b for each treatment unit. Insert "XX" into column 3-b if no code corresponds to a treatment unit you list. If you are applying for a permit for a privately owned treatment works, you must also identify all of your contributors in an attached listing.

Item II-C

A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for infrequent shut-downs for maintenance, process changes, or other similar activities. A discharge is seasonal if it occurs only during certain parts of the year. Fill in every applicable column in this item for each source of intermittent or seasonal discharges. Base your answers on actual data whenever available; otherwise, provide your best estimate. Report the highest daily value for flow rate and total volume in the

"Maximum Daily" columns (columns 4-a-2 and 4-b-2). Report the average of all daily values measured during days when discharge occurred within the last year in the "Long Term Average" columns (columns 4-a-1 and 4-b-1).

Item III-A

All effluent guidelines promulgated by EPA appear in the Federal Register and are published annually in 40 CFR Subchapter N. A guideline applies to you if you have any operations contributing process wastewater in any subcategory covered by a BPT, BCT, or BAT guideline. If you are unsure whether you are covered by a promulgated effluent guideline, check with your EPA Regional office (Table 1 in the Form 1 instructions). You must check "yes" if an applicable effluent guideline has been promulgated, even if the guideline limitations are being contested in court. If you believe that a promulgated effluent guideline has been remanded for reconsideration by a court and does not apply to your operations, you may check "no."

Item III-B

An effluent guideline is expressed in terms of production (or other measure of operation) if the limitation is expressed as mass of pollutant per operational parameter; for example, "pounds of BOD per cubic foot of logs from which bark is removed," or "pounds of TSS per megawatt hour of electrical energy consumed by smelting furnace". An example of a guideline not expressed in terms of a measure of operation is one which limits the concentration of pollutants.

Item III-C

This item must be completed only if you checked "yes" to item III-B. The production information requested here is necessary to apply effluent guidelines to your facility and you cannot claim it as confidential. However, you do not have to indicate how the reported information was calculated. Report quantities in the units of measurement used in the applicable effluent guideline. The production figures provided must be based on actual daily production and not on design capacity or on predictions of future operations. To obtain alternate limits under 40 CFR 122.45(b)(2)(ii) you must define your maximum production capability and demonstrate to the Director that your actual production is substantially below maximum production capability and that there is a reasonable potential for an increase above actual production during the duration of the permit.

Item IV-A

If you check "yes" to this question, complete all parts of the chart, or attach a copy of any previous submission you have made to EPA containing same information.

Item IV-B

You are not required to submit a description of future pollution control projects if you do not wish to or if none is planned.

Item V-A, B, C, and D

The items require you to collect and report data on the pollutants discharged for each of your outfalls. Each part of this item addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire item.

General Instructions

Part A requires you to report at least one analysis for each pollutant listed. Parts B and C require you to report analytical data in two ways. For some pollutants, you may be required to mark 'X' in the "Testing Required" column (column 2-a, Part C), and test (sample and analyze) and report the levels of the pollutants in your discharge whether or not you expect them to be present in your discharge. For all others, you must mark 'X' in either the "Believe Present" column or the "Believe Absent" column (columns 2-a or 2-b, Part B, and columns 2-b or 2-c, Part C) based on your best estimate, and test for those which you believe to be present. (See specific instructions on the form and below for Parts A through D.) Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, inter-

ITEM V — A, B, C, and D (continued)

mediate and final products and byproducts, and any previous analyses known to you of your effluent or similar effluent. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated stormwater runoff.) If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an 'X' in the "Intake" column.

A. Reporting. All levels must be reported as concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper instead of filling out pages V-1 to V-9 if the separate sheets contain all the required information in a format which is consistent with pages V-1 to V-9 in spacing and in identification of pollutants and columns. (For example, the data system used in your GC/MS analysis may be able to print data in the proper format.) Use the following abbreviations in the columns headed "Units" (column 3, Part A, and column 4, Parts B and C).

| Concentration | Mass |
|--------------------------------|-------------------------------|
| ppm..... parts per million | lbs pounds |
| mg/l milligrams per liter | ton tons (English tons) |
| ppb parts per billion | mg milligrams |
| ug/l.... micrograms per liter | g grams |
| | kg kilograms |
| | T tonnes (metric tons) |

All reporting of values for metals must be in terms of "total recoverable metal," unless:

- (1) An applicable, promulgated effluent limitation or standard specifies the limitation for the metal in dissolved, valent, or total form; or
- (2) All approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium); or
- (3) The permitting authority has determined that in establishing case-by-case limitations it is necessary to express the limitations on the metal in dissolved, valent, or total form to carry out the provisions of the CWA.

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert '1' into the "Number of Analyses" column (columns 2-a and 2-d, Part A, and column 3-a, 3-d, Parts B and C). The permitting authority may require you to conduct additional analyses to further characterize your discharges. For composite samples, the daily value is the total mass or average concentration found in a composite sample taken over the operating hours of the facility during a 24-hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24-hour period.

If you measure more than one daily value for a pollutant and those values are representative of your wastestream, you must report them. You must describe your method of testing and data analysis. You also must determine the average of all values within the last year and report the concentration and mass under the "Long Term Average Values" columns (column 2-c, Part A, and column 3-c, Parts B and C), and the total number of daily values under the "Number of Analyses" columns (column 2-d, Part A, and columns 3-d, Parts B and C). Also, determine the average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30-day Values" columns (column 2-c, Part A, and column 3-b, Parts B and C).

B. Sampling: The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact your EPA or State permitting authority for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation,

holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes which contribute wastewater in normal operation, and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit, or at any site adequate for the collection of a representative sample.

For pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, and fecal coliform, grab samples must be used. For all other pollutants 24-hour composite samples must be used. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period of greater than 24 hours. For stormwater discharges a minimum of one to four grab samples may be taken, depending on the duration of the discharge. One grab must be taken in the first hour (or less) of discharge, with one additional grab (up to a minimum of four) taken in each succeeding hour of discharge for discharges lasting four or more hours. The Director may waive composite sampling for any outfall for which you demonstrate that use of an automatic sampler is infeasible and that a minimum of four grab samples will be representative of your discharge.

Grab and composite samples are defined as follows:

Grab sample: An individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

Composite sample: A combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically. For GC/MS Volatile Organic Analysis (VOA), aliquots must be combined in the laboratory immediately before analysis. Four (4) (rather than eight) aliquots or grab samples should be collected for VOA. These four samples should be collected during actual hours of discharge over a 24 hour period and need not be flow proportioned. Only one analysis is required.

The Agency is currently reviewing sampling requirements in light of recent research on testing methods. Upon completion of its review, the Agency plans to propose changes to the sampling requirements.

Data from samples taken in the past may be used, provided that:

All data requirements are met;

Sampling was done no more than three years before submission; and

All data are representative of the present discharge.

Among the factors which would cause the data to be unrepresentative are significant changes in production level, changes in raw materials, processes, or final products, and changes in wastewater treatment. When the Agency promulgates new analytical methods in 40 CFR Part 136, EPA will provide information as to when you should use the new methods to generate data on your discharges. Of course, the Director may request additional information, including current quantitative data, if she or he determines it to be necessary to assess your discharges.

C. Analysis: You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding time, preservation techniques, and the quality control measures which you used. If you have two or more substantially identical outfalls, you may request permission from your permitting authority to sample and analyze only one outfall and submit the results of the analysis

ITEM V — A, B, C, and D (continued)

for other substantially identical outfalls. If your request is granted by the permitting authority, on a separate sheet attached to the application form, identify which outfall you did test, and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

D. Reporting of Intake Data: You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. NPDES regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the "Intake" columns report the average of the results of analyses on your intake water (*if your water is treated before use, test the water after it is treated*), and discuss the requirements for a net limitation with your permitting authority.

Part V-A

Part V-A must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. However, at your request, the Director may waive the requirement to test for one or more of these pollutants, upon a determination that available information is adequate to support issuance of the permit with less stringent reporting requirements for these pollutants. You also may request a waiver for one or more of these pollutants for your category or subcategory from the Director, Office of Water Enforcement and Permits. See discussion in General Instructions to item V for definitions of the columns in Part A. The "Long Term Average Values" column (column 2-c) and "Maximum 30-day Values" column (column 2-b) are not compulsory but should be filled out if data are available.

Use composite samples for all pollutants in this Part, except use grab samples for pH and temperature. See discussion in General Instructions to item V for definitions of the columns in Part A. The "Long Term Average Values" column (column 2-c) and "Maximum 30-Day Values" column (column 2-b) are not compulsory but should be filled out if data are available.

Part V-B

Part V-B must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. You must report quantitative data if the pollutant(s) in question is limited in an effluent limitations guideline either directly, or indirectly but expressly through limitation on an indicator (e.g., use of TSS as an indicator to control the discharge of iron and aluminum). For other discharged pollutants you must provide quantitative data or explain their presence in your discharge. EPA will consider requests to the Director of the Office of Water Enforcement and Permits to eliminate the requirement to test for pollutants for an industrial category or subcategory. Your request must be supported by data representative of the industrial category or subcategory in question. The data must demonstrate that individual testing for each applicant is unnecessary, because the facilities in the category or subcategory discharge substantially identical levels of the pollutant or discharge the pollutant uniformly at sufficiently low levels. Use composite samples for all pollutants you analyze for in this part, except use grab samples for residual chlorine, oil and grease, and fecal coliform. The "Long Term Average Values" column (column 3-c) and "Maximum 30-day Values" column (column 3-b) are not compulsory but should be filled out if data are available.

Part V-C

Table 2c-2 lists the 34 "primary" industry categories in the left-hand column. For each outfall, if any of your processes which contribute wastewater falls into one of those categories, you must mark "X" in "Testing Required" column (column 2-a) and test for (1) all of the toxic metals, cyanide, and total phenols, and (2) the organic toxic pollutants contained in Table 2c-2 as applicable to your category, unless you qualify as a small business (see below). The organic toxic pollutants are listed by GC/MS frac-

tions on pages V-4 to V-9 in Part V-C. For example, the Organic Chemicals Industry has an asterisk in all four fractions; therefore, applicants in this category must test for all organic toxic pollutants in Part V-C. The inclusion of total phenols in Part V-C is not intended to classify total phenols as a toxic pollutant. If you are applying for a permit for a privately owned treatment works, determine your testing requirements on the basis of the industry categories of your contributors. When you determine which industry category you are in to find your testing requirements, you are not determining your category for any other purpose and you are not giving up your right to challenge your inclusion in that category (for example, for deciding whether an effluent guideline is applicable) before your permit is issued. For all other cases (secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions), you must mark "X" in either the "Believed Present" column (column 2-b) or the "Believed Absent" column (column 2-c) for each pollutant. For every pollutant you know or have reason to believe is present in your discharge in concentrations of 10 ppb or greater, you must report quantitative data. For acrolein, acrylonitrile, 2, 4 dinitrophenol, and 2-methyl-4, 6 dinitrophenol, where you expect these four pollutants to be discharged in concentrations of 100 ppb or greater, you must report quantitative data. For every pollutant expected to be discharged in concentrations less than the thresholds specified above, you must either submit quantitative data or briefly describe the reasons the pollutant is expected to be discharged. At your request the Director, Office of Water Enforcement and Permits, may waive the requirement to test for pollutants for an industrial category or subcategory. Your request must be supported by data representative of the industrial category or subcategory in question. The data must demonstrate that individual testing for each applicant is unnecessary, because the facilities in question discharge substantially identical levels of the pollutant, or discharge the pollutant uniformly at sufficiently low levels. If you qualify as a small business (see below) you are exempt from testing for the organic toxic pollutants, listed on pages V-4 to V-9 in Part C. For pollutants in intake water, see discussion in General Instructions to this item. The "Long Term Average Values" column (column 3-c) and "Maximum 30-day Values" column (column 3-b) are not compulsory but should be filled out if data are available. You are required to mark "Testing Required" for dioxin if you use or manufacture one of the following compounds:

- (a) 2,4,5-trichlorophenoxy acetic acid, (2,4,5-T);
- (b) 2-(2,4,5-trichlorophenoxy) propanoic acid, (Silvex, 2,4,5-TP);
- (c) 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate, (Erbon);
- (d) O,O-dimethyl O-(2,4,5-trichlorophenyl) phosphorothioate, (Ronnel);
- (e) 2,4,5-trichlorophenol, (TCP); or
- (f) hexachlorophene, (HCP).

If you mark "Testing Required" or "Believed Present," you must perform a screening analysis for dioxins, using gas chromatography with an electron capture detector. A TCDD standard for quantitation is not required. Describe the results of this analysis in the space provided; for example, "no measurable baseline deflection at the retention time of TCDD" or "a measurable peak within the tolerances of the retention time of TCDD." The permitting authority may require you to perform a quantitative analysis if you report a positive result. The Effluent Guidelines Division of EPA has collected and analyzed samples from some plants for the pollutants listed in Part C in the course of its BAT guidelines development program. If your effluents are sampled and analyzed as part of this program in the last three years, you may use these data to answer Part C provided that the permitting authority approves, and provided that no process change or change in raw materials or operating practices has occurred since the samples were taken that would make the analyses unrepresentative of your current discharge.

ITEM V — A, B, C, and D (continued)

Small Business Exemption: If you qualify as a "small business," you are exempt from the reporting requirements for the organic toxic pollutants, listed on pages V-4 to V-9 in Part C. There are two ways in which you can qualify as a "small business." If your facility is a coal mine, and if your probable total annual production is less than 100,000 tons per year, you may submit past production data or estimated future production (such as a schedule of estimated total production under 30 CFR § 795.14(c)) instead of conducting analyses for the organic toxic pollutants. If your facility is not a coal mine, and if your gross total annual sales for the most recent three years average less than \$100,000 per year (in second quarter 1980 dollars), you may submit sales data for those years instead of conducting analyses for the organic toxic pollutants. The production or sales data must be for the facility which is the source of the discharge. The data should not be limited to production or sales for the process or processes which contribute to the discharge, unless those are the only processes at your facility. For sales data, in situations involving intracorporate transfer of goods and services, the transfer price per unit should approximate market prices for those goods and services as closely as possible. Sales figures for years after 1980 should be indexed to the second quarter of 1980 by using the gross national product price deflator (second quarter of 1980 = 100). This index is available in *National Income and Product Accounts of the United States* (Department of Commerce, Bureau of Economic Analysis).

Part V-D

List any pollutants in Table 2c-3 that you believe to be present and explain why you believe them to be present. No analysis is required, but if you have analytical data, you must report it.

Note: Under 40 CFR 117.12(a)(2), certain discharges of hazardous substances (listed in Table 2c-4 of these instructions) may be exempted from the requirements of section 311 of CWA, which establishes reporting requirements, civil penalties and liability for cleanup costs for spills of oil and hazardous substances. A discharge of a particular substance may be exempted if the origin, source, and amount of the discharged substances are identified in the NDPEs permit application or in the permit, if the permit contains a requirement for treatment of the discharge, and if the treatment is in place. To apply for an exclusion of the discharge of any hazardous substance from the requirements of section 311, attach additional sheets of paper to your form, setting forth the following information:

1. The substance and the amount of each substance which may be discharged.
2. The origin and source of the discharge of the substance.
3. The treatment which is to be provided for the discharge by:
 - a. An onsite treatment system separate from any treatment system treating your normal discharge;
 - b. A treatment system designed to treat your normal discharge and which is additionally capable of treating the amount of the substance identified under paragraph 1 above; or
 - c. Any combination of the above.

See 40 CFR §117.12(a)(2) and (c), published on August 29, 1979, in 44 FR 50766, or contact your Regional Office (Table 1 on Form 1, Instructions), for further information on exclusions from section 311.

Item VI

This requirement applies to current use or manufacture of a toxic pollutant as an intermediate or final product or byproduct. The Director may waive or modify the requirement if you demonstrate that it would be unduly burdensome to identify each toxic pollutant and the Director has adequate information to issue your permit. You may not claim this information as confidential; however, you do not have to distinguish between use or production of the pollutants or list the amounts.

Item VII

Self explanatory. The permitting authority may ask you to provide additional details after your application is received.

Item IX

The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application, ... shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than six months, or by both."

40 CFR Part 122.22 requires the certification to be signed as follows:

(A) *For a corporation:* by a responsible corporate official. For purposes of this section, a responsible corporate official means (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25,000,000 (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: EPA does not require specific assignments or delegation of authority to responsible corporate officers identified in §122.22(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate position under §122.22(a)(1)(ii) rather than to specific individuals.

(B) *For a partnership or sole proprietorship:* by a general partner or the proprietor, respectively; or

(C) *For a municipality, State, Federal, or other public agency:* by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal Agency includes (i) the chief executive officer of the Agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the Agency (e.g., *Regional Administrators of EPA*). Applications for Group II stormwater dischargers may be signed by a duly authorized representative (as defined in 40 CFR 122.22(b)) of the individuals identified above.

CODES FOR TREATMENT UNITS

PHYSICAL TREATMENT PROCESSES

| | | | |
|-----|-------------------------------|-----|-----------------------------------|
| 1-A | Ammonia Stripping | 1-M | Grit Removal |
| 1-B | Dialysis | 1-N | Microstraining |
| 1-C | Diatomaceous Earth Filtration | 1-O | Mixing |
| 1-D | Distillation | 1-P | Moving Bed Filters |
| 1-E | Electrodialysis | 1-Q | Multimedia Filtration |
| 1-F | Evaporation | 1-R | Rapid Sand Filtration |
| 1-G | Flocculation | 1-S | Reverse Osmosis (Hyperfiltration) |
| 1-H | Flotation | 1-T | Screening |
| 1-I | Foam Fractionation | 1-U | Sedimentation (Settling) |
| 1-J | Freezing | 1-V | Slow Sand Filtration |
| 1-K | Gas-Phase Separation | 1-W | Solvent Extraction |
| 1-L | Grinding (Comminutors) | 1-X | Sorption |

CHEMICAL TREATMENT PROCESSES

| | | | |
|-----|-------------------------|-----|---------------------------|
| 2-A | Carbon Adsorption | 2-G | Disinfection (Ozone) |
| 2-B | Chemical Oxidation | 2-H | Disinfection (Other) |
| 2-C | Chemical Precipitation | 2-I | Electrochemical Treatment |
| 2-D | Coagulation | 2-J | Ion Exchange |
| 2-E | Dechlorination | 2-K | Neutralization |
| 2-F | Disinfection (Chlorine) | 2-L | Reduction |

BIOLOGICAL TREATMENT PROCESSES

| | | | |
|-----|-------------------------------|-----|-----------------------------------|
| 3-A | Activated Sludge | 3-E | Pre-Aeration |
| 3-B | Aerated Lagoons | 3-F | Spray Irrigation/Land Application |
| 3-C | Anaerobic Treatment | 3-G | Stabilization Ponds |
| 3-D | Nitrification-Denitrification | 3-H | Trickling Filtration |

OTHER PROCESSES

| | | | |
|-----|---------------------------------|-----|-----------------------------------|
| 4-A | Discharge to Surface Water | 4-C | Reuse/Recycle of Treated Effluent |
| 4-B | Ocean Discharge Through Outfall | 4-D | Underground Injection |

SLUDGE TREATMENT AND DISPOSAL PROCESSES

| | | | |
|-----|-----------------------|-----|---------------------|
| 5-A | Aerobic Digestion | 5-M | Heat Drying |
| 5-B | Anaerobic Digestion | 5-N | Heat Treatment |
| 5-C | Belt Filtration | 5-O | Incineration |
| 5-D | Centrifugation | 5-P | Land Application |
| 5-E | Chemical Conditioning | 5-Q | Landfill |
| 5-F | Chlorine Treatment | 5-R | Pressure Filtration |
| 5-G | Composting | 5-S | Pyrolysis |
| 5-H | Drying Beds | 5-T | Sludge Lagoons |
| 5-I | Elutriation | 5-U | Vacuum Filtration |
| 5-J | Flotation Thickening | 5-V | Vibration |
| 5-K | Freezing | 5-W | Wet Oxidation |
| 5-L | Gravity Thickening | | |

TABLE 2C-1

TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS BY INDUSTRY CATEGORY*

| INDUSTRY CATEGORY | GC/MS FRACTION ¹ | | | |
|---|-----------------------------|------|--------------|-----------|
| | Volatile | Acid | Base/Neutral | Pesticide |
| Adhesives and sealants | X | X | X | — |
| Aluminum forming | X | X | X | — |
| Auto and other laundries | X | X | X | X |
| Battery manufacturing | X | — | X | — |
| Coal mining | X | X | X | X |
| Coil coating | X | X | X | — |
| Copper forming | X | X | X | — |
| Electric and electronic compounds | X | X | X | X |
| Electroplating | X | X | X | — |
| Explosives manufacturing | — | X | X | — |
| Foundries | X | X | X | — |
| Gum and wood chemicals | X | X | X | X |
| Inorganic chemicals manufacturing | X | X | X | — |
| Iron and steel manufacturing | X | X | X | — |
| Leather tanning and finishing | X | X | X | X |
| Mechanical products manufacturing | X | X | X | — |
| Nonferrous metals manufacturing | X | X | X | X |
| Ore mining | X | X | X | X |
| Organic chemicals manufacturing | X | X | X | X |
| Paint and ink formulation | X | X | X | X |
| Pesticides | X | X | X | X |
| Petroleum refining | X | X | X | X |
| Pharmaceutical preparations | X | X | X | — |
| Photographic equipment and supplies | X | X | X | X |
| Plastic and synthetic materials manufacturing | X | X | X | X |
| Plastic processing | X | — | — | — |
| Porcelain enameling | X | — | X | X |
| Printing and publishing | X | X | X | X |
| Pulp and paperboard mills | X | X | X | X |
| Rubber processing | X | X | X | — |
| Soap and detergent manufacturing | X | X | X | — |
| Steam electric power plants | X | X | X | — |
| Textile mills | X | X | X | X |
| Timber products processing | X | X | X | X |

*See note at conclusion of 40 CFR Part 122, Appendix D (1983) for explanation of effect of suspensions on testing requirements for primary industry categories.

¹The pollutants in each fraction are listed in Item V—C.

X = Testing required.

— = Testing not required.

**TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO
BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT**

TOXIC POLLUTANT

Asbestos

HAZARDOUS SUBSTANCES

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumaphos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D (2,4-Dichlorophenoxyacetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2-Dichloropropionic acid

HAZARDOUS SUBSTANCES

Dichlorvos
Diethyl amine
Dimethyl amine
Dinitrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monoethyl amine
Monomethyl amine

HAZARDOUS SUBSTANCES

Naled
Napthenic acid
Nitrotoluene
Parathion
Phenolsulfonate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
Styrene
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)
TDE (Tetrachlorodiphenyl ethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy)
propanoic acid]
Trichlorofon
Triethanolamine
Triethylamine
Trimethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium

HAZARDOUS SUBSTANCES

1. Acetaldehyde
2. Acetic acid
3. Acetic anhydride
4. Acetone cyanohydrin
5. Acetyl bromide
6. Acetyl chloride
7. Acrolein
8. Acrylonitrile
9. Adipic acid
10. Aldrin
11. Allyl alcohol
12. Allyl chloride
13. Aluminum sulfate
14. Ammonia
15. Ammonium acetate
16. Ammonium benzoate
17. Ammonium bicarbonate
18. Ammonium bichromate
19. Ammonium bifluoride
20. Ammonium bisulfite
21. Ammonium carbamate
22. Ammonium carbonate
23. Ammonium chloride
24. Ammonium chromate
25. Ammonium citrate
26. Ammonium fluoroborate
27. Ammonium fluoride
28. Ammonium hydroxide
29. Ammonium oxalate
30. Ammonium silicofluoride
31. Ammonium sulfamate
32. Ammonium sulfide
33. Ammonium sulfite
34. Ammonium tartrate
35. Ammonium thiocyanate
36. Ammonium thiosulfate
37. Amyl acetate
38. Aniline
39. Antimony pentachloride
40. Antimony potassium tartrate
41. Antimony tribromide
42. Antimony trichloride
43. Antimony trifluoride
44. Antimony trioxide
45. Arsenic disulfide
46. Arsenic pentoxide
47. Arsenic trichloride
48. Arsenic trioxide
49. Arsenic trisulfide
50. Barium cyanide
51. Benzene
52. Benzoic acid
53. Benzonitrile
54. Benzoyl chloride
55. Benzyl chloride
56. Beryllium chloride
57. Beryllium fluoride
58. Beryllium nitrate
59. Butylacetate
60. n-Butylphthalate
61. Butylamine
62. Butyric acid
63. Cadmium acetate
64. Cadmium bromide
65. Cadmium chloride
66. Calcium arsenate
67. Calcium arsenite
68. Calcium carbide
69. Calcium chromate
70. Calcium cyanide
71. Calcium dodecylbenzenesulfonate
72. Calcium hypochlorite
73. Captan
74. Carbaryl
75. Carbofuran
76. Carbon disulfide
77. Carbon tetrachloride
78. Chlordane
79. Chlorine
80. Chlorobenzene
81. Chloroform
82. Chloropyrifos
83. Chlorosulfonic acid
84. Chromic acetate
85. Chromic acid
86. Chromic sulfate
87. Chromous chloride
88. Cobaltous bromide
89. Cobaltous formate
90. Cobaltous sulfamate
91. Coumaphos
92. Cresol
93. Crotonaldehyde
94. Cupric acetate
95. Cupric acetoarsenite
96. Cupric chloride
97. Cupric nitrate
98. Cupric oxalate
99. Cupric sulfate
100. Cupric sulfate ammoniated
101. Cupric tartrate
102. Cyanogen chloride
103. Cyclohexane
104. 2,4-D acid (2,4-Dichlorophenoxyacetic acid)
105. 2,4-D esters (2,4-Dichlorophenoxyacetic acid esters)
106. DDT
107. Diazinon
108. Dicamba
109. Dichlobenil
110. Dichlone
111. Dichlorobenzene
112. Dichloropropane
113. Dichloropropene
114. Dichloropropene-dichloropropane mix
115. 2,2-Dichloropropionic acid
116. Dichlorvos
117. Dieldrin
118. Diethylamine
119. Dimethylamine
120. Dinitrobenzene
121. Dinitrophenol
122. Dinitrotoluene
123. Diquat
124. Disulfoton
125. Diuron
126. Dodecylbenzenesulfonic acid
127. Endosulfan
128. Endrin
129. Epichlorohydrin
130. Ethion
131. Ethylbenzene
132. Ethylenediamine
133. Ethylene dibromide
134. Ethylene dichloride
135. Ethylene diaminetetracetic acid (EDTA)
136. Ferric ammonium citrate
137. Ferric ammonium oxalate
138. Ferric chloride
139. Ferric fluoride
140. Ferric nitrate
141. Ferric sulfate
142. Ferrous ammonium sulfate
143. Ferrous chloride
144. Ferrous sulfate
145. Formaldehyde
146. Formic acid
147. Fumaric acid
148. Furfural
149. Guthion
150. Heptachlor
151. Hexachlorocyclopentadiene
152. Hydrochloric acid
153. Hydrofluoric acid
154. Hydrogen cyanide
155. Hydrogen sulfide
156. Isoprene
157. Isopropanolamine dodecylbenzenesulfonate
158. Kelthane
159. Kepone
160. Lead acetate
161. Lead arsenate
162. Lead chloride
163. Lead fluoborate
164. Lead flourite
165. Lead iodide
166. Lead nitrate
167. Lead stearate
168. Lead sulfate
169. Lead sulfide
170. Lead thiocyanate
171. Lindane
172. Lithium chromate
173. Malathion
174. Maleic acid
175. Maleic anhydride
176. Mercaptodimethur
177. Mercuric cyanide
178. Mercuric nitrate
179. Mercuric sulfate
180. Mercuric thiocyanate
181. Mercurous nitrate
182. Methoxychlor
183. Methyl mercaptan
184. Methyl methacrylate
185. Methyl parathion
186. Mevinphos
187. Mexacarbate
188. Monoethylamine
189. Monomethylamine
190. Naled
191. Naphthalene
192. Naphthenic acid
193. Nickel ammonium sulfate
194. Nickel chloride
195. Nickel hydroxide
196. Nickel nitrate
197. Nickel sulfate
198. Nitric acid
199. Nitrobenzene
200. Nitrogen dioxide
201. Nitrophenol
202. Nitrotoluene
203. Paraformaldehyde

| | | |
|--------------------------------------|---|-----------------------------------|
| 204. Parathion | 238. Sodium dodecylbenzenesulfonate | 266. Trichloroethylene |
| 205. Pentachlorophenol | 239. Sodium fluoride | 267. Trichlorophenol |
| 206. Phenol | 240. Sodium hydrosulfide | 268. Triethanolamine |
| 207. Phosgene | 241. Sodium hydroxide | dodecylbenzenesulfonate |
| 208. Phosphoric acid | 242. Sodium hypochlorite | 269. Triethylamine |
| 209. Phosphorus | 243. Sodium methylate | 270. Trimethylamine |
| 210. Phosphorus oxychloride | 244. Sodium nitrite | 271. Uranyl acetate |
| 211. Phosphorus pentasulfide | 245. Sodium phosphate (dibasic) | 272. Uranyl nitrate |
| 212. Phosphorus trichloride | 246. Sodium phosphate (tribasic) | 273. Vanadium pentoxide |
| 213. Polychlorinated biphenyls (PCB) | 247. Sodium selenite | 274. Vanadyl sulfate |
| 214. Potassium arsenate | 248. Strontium chromate | 275. Vinyl acetate |
| 215. Potassium arsenite | 249. Strychnine | 276. Vinylidene chloride |
| 216. Potassium bichromate | 250. Styrene | 277. Xylene |
| 217. Potassium chromate | 251. Sulfuric acid | 278. Xylenol |
| 218. Potassium cyanide | 252. Sulfur monochloride | 279. Zinc acetate |
| 219. Potassium hydroxide | 253. 2,4,5-T acid (2,4,5-Trichlorophenoxyacetic acid) | 280. Zinc ammonium chloride |
| 220. Potassium permanganate | 254. 2,4,5-T amines (2,4,5-Trichlorophenoxyacetic acid amines) | 281. Zinc borate |
| 221. Propargite | 255. 2,4,5-T esters (2,4,5-Trichlorophenoxyacetic acid esters) | 282. Zinc bromide |
| 222. Propionic acid | 256. 2,4,5-T salts (2,4,5-Trichlorophenoxyacetic acid salts) | 283. Zinc carbonate |
| 223. Propionic anhydride | 257. 2,4,5-TP acid (2,4,5-Trichlorophenoxypropanoic acid) | 284. Zinc chloride |
| 224. Propylene oxide | 258. 2,4,5-TP acid esters (2,4,5-Trichlorophenoxypropanoic acid esters) | 285. Zinc cyanide |
| 225. Pyrethrins | 259. TDE (Tetrachlorodiphenyl ethane) | 286. Zinc fluoride |
| 226. Quinoline | 260. Tetraethyl lead | 287. Zinc formate |
| 227. Resorcinol | 261. Tetraethyl pyrophosphate | 288. Zinc hydrosulfite |
| 228. Selenium oxide | 262. Thallium sulfate | 289. Zinc nitrate |
| 229. Silver nitrate | 263. Toluene | 290. Zinc phenolsulfonate |
| 230. Sodium | 264. Toxaphene | 291. Zinc phosphide |
| 231. Sodium arsenate | 265. Trichlorofon | 292. Zinc silicofluoride |
| 232. Sodium arsenite | | 293. Zinc sulfate |
| 233. Sodium bichromate | | 294. Zirconium nitrate |
| 234. Sodium bifluoride | | 295. Zirconium potassium flouride |
| 235. Sodium bisulfite | | 296. Zirconium sulfate |
| 236. Sodium chromate | | 297. Zirconium tetrachloride |
| 237. Sodium cyanide | | |

LINE DRAWING

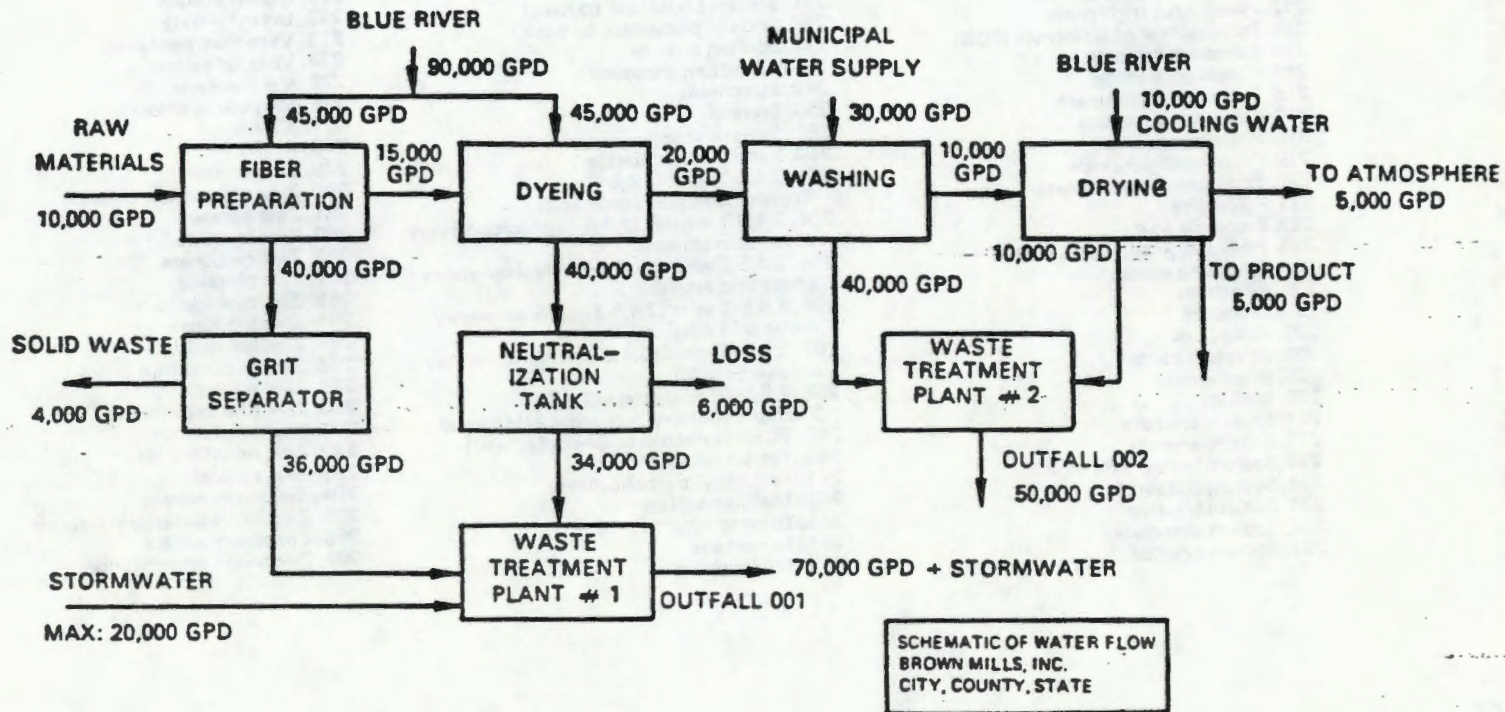


FIGURE 2C-1

**FORM
26
NPDES**



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

[illegible]

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

[illegible]

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, any of the discharges described in Items II-A

☐ YES (complete the following table)

| 1. OUTFALL NUMBER (list) | 2. OPERATION(s) CONTRIBUTING FLOW (list) | 3. AVERAGE PER (spec given | VOLUME (with units) | | 4. DURATION (in days) |
|--------------------------------|--|-------------------------------------|------------------------|---------------------|--------------------------|
| | | | 1. MAXIMUM DAILY | 2. MAXIMUM DAILY | |
| | | | | | |

not be listed here

- request alt. limits
based on increased
prod.
citation

Stormwater outfall would not be listed here
- request alt. limits based on increased prod.
Citation
S

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (complete Item III-B)

☐ NO (to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☐ YES (complete Item III-C)

☐ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION

| a. QUANTITY PER DAY | b. UNITS OF MEASURE | c. OPERATION, PRODUCT, MATERIAL, ETC. (specify) | 2. AFFECTED OUTFALLS (list outfall numbers) |
|---------------------|---------------------|--|--|
| | | | |
| | | | |

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of waste-water treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table)

☐ NO (go to Item IV-B)

| 1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC. | 2. AFFECTED OUTFALLS | | 3. BRIEF DESCRIPTION OF PROJECT | 4. FINAL COMPLIANCE DATE | |
|---|----------------------|------------------------|---------------------------------|--------------------------|--------------|
| | a. NO. | b. SOURCE OF DISCHARGE | | a. REQUIRED | b. PROJECTED |
| | | | | | |

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

III. PRODUCTION

☐ NO (to Section IV)☐ NO (go to Section IV)

| 1. AVERAGE DAILY PRODUCTION | | | 2. AFFECTED OUTFALLS (list outfall numbers) |
|-----------------------------|---------------------|--|---|
| a. QUANTITY PER DAY | b. UNITS OF MEASURE | c. OPERATION, PRODUCT, MATERIAL, ETC. (specify) | |
| | | | |

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table) ☐ NO (go to Item IV-B)

B. **OPTIONAL:** You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ **MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED**

V. INTAKE AND EFFLUENT CHARACTERISTICS

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

[illegible]

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

☐ YES (list all such pollutants below)☐ NO (go to Item VI-B)

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ **YES** (Identify the test(s) and describe their purposes below)

☐ **NO** (go to Section VIII)

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ **YES** (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ **NO** (go to Section IX)

| A. NAME | B. ADDRESS | C. TELEPHONE (area code & no.) | D. POLLUTANTS ANALYZED (list) |
|---------|------------|-----------------------------------|----------------------------------|
| | | | |

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| | |
|--|--------------------------------|
| A. NAME & OFFICIAL TITLE (type or print) | B. PHONE NO. (area code & no.) |
| C. SIGNATURE | D. DATE SIGNED |

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO.

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

| 1. POLLUTANT | 2. EFFLUENT | | | | | | d. NO. OF ANALYSES | 3. INTAKE (optional) | |
|------------------------------------|------------------------|----------|--|----------|--|----------|--------------------|----------------------------|--------------------|
| | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | | e. LONG TERM AVERAGE VALUE | f. NO. OF ANALYSES |
| | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | |
| a. Biochemical Oxygen Demand (BOD) | | | | | | | | | |
| b. Chemical Oxygen Demand (COD) | | | | | | | | | |
| c. Total Organic Carbon (TOC) | | | | | | | | | |
| d. Total Suspended Solids (TSS) | | | | | | | | | |
| e. Ammonia (as N) | | | | | | | | | |
| f. Flow | VALUE | | VALUE | | VALUE | | | | |
| g. Temperature (winter) | VALUE | | VALUE | | VALUE | | | | |
| h. Temperature (summer) | VALUE | | VALUE | | VALUE | | | | |
| i. pH | MINIMUM | MAXIMUM | MINIMUM | MAXIMUM | | | °C | | |
| | | | | | | | STANDARD UNITS | | |

Do they have to provide info/analysis for stormwater these pollutants for outfall?
 For outfall - only temp, OG & pH flow?
 get copy of form

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2-a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NO. (if available) | 2. MARK "X" | | 3. EFFLUENT | | | | | | 4. NO. OF ANALYSES | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---------------------|--------------------|------------------------|----------|--|----------|--|----------|--------------------|----------------------------|---------|----------------------------|----------|--------------------|
| | a. BELIEVED PRESENT | b. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | | a. LONG TERM AVERAGE VALUE | b. MASS | c. LONG TERM AVERAGE VALUE | | d. NO. OF ANALYSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| a. Bromide 24959-67-9) | | | | | | | | | | | | | | |
| b. Chlorine, total Residual | | | | | | | | | | | | | | |
| c. Color | | | | | | | | | | | | | | |
| d. Fecal coliform | | | | | | | | | | | | | | |
| e. Fluoride 6984-48-8) | | | | | | | | | | | | | | |
| f. Nitrate-nitrite (as N) | | | | | | | | | | | | | | |

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO.

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

| 1. POLLUTANT | 2. EFFLUENT | | | | | | | 3. UNITS (specify if blank) | | 4. INTAKE (optional) | | |
|--|------------------------|----------|---|----------|--|----------|-----------------------|--------------------------------|---------|-------------------------------|----------|-----------------------|
| | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| a. Biochemical Oxygen Demand (BOD) | | | | | | | | | | | | |
| b. Chemical Oxygen Demand (COD) | | | | | | | | | | | | |
| c. Total Organic Carbon (TOC) | | | | | | | | | | | | |
| d. Total Suspended Solids (TSS) | | | | | | | | | | | | |
| e. Ammonia (as N) | | | | | | | | | | | | |
| f. Flow | VALUE | | VALUE | | VALUE | | | | | VALUE | | |
| g. Temperature (winter) | VALUE | | VALUE | | VALUE | | | | °C | VALUE | | |
| h. Temperature (summer) | VALUE | | VALUE | | VALUE | | | | °C | VALUE | | |
| i. pH | MINIMUM | MAXIMUM | MINIMUM | MAXIMUM | | | | STANDARD UNITS | | | | |
| | | | | | | | | | | | | |

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NO. (if available) | 2. MARK 'X' | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|--|---------------------|--------------------|------------------------|----------|---|----------|--|----------|-----------------------|------------------|---------|-------------------------------|----------|-----------------------|
| | a. BELIEVED PRESENT | b. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| a. Bromide (24959-67-9) | | | | | | | | | | | | | | |
| b. Chlorine, Total Residual | | | | | | | | | | | | | | |
| c. Color | | | | | | | | | | | | | | |
| d. Fecal Coliform | | | | | | | | | | | | | | |
| e. Fluoride (16984-48-8) | | | | | | | | | | | | | | |
| f. Nitrate- Nitrite (as N) | | | | | | | | | | | | | | |

TEM V-B CONTINUED FROM FRONT

| 1. POLLUTANT AND CAS NO. (if available) | 2. MARK 'X' | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|---------------------|--------------------------|------------------------|----------|---|----------|---|----------|--------------------|------------------|----------------------|----------------------------|----------|--------------------|
| | a. RECEIVED PRESENT | b. RECEIVED ADJ. PRESENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| Nitrogen, total Organic (N) | | | | | | | | | | | | | | |
| Oil and grease | | | | | | | | | | | | | | |
| Phosphorus (P), Total (723-14-0) | | | | | | | | | | | | | | |
| Radioactivity | | | | | | | | | | | | | | |
| Alpha, total | | | | | | | | | | | | | | |
| Beta, total | | | | | | | | | | | | | | |
| Radium, total | | | | | | | | | | | | | | |
| Radium 226, Total | | | | | | | | | | | | | | |
| Sulfate (SO ₄) (4808-79-8) | | | | | | | | | | | | | | |
| Sulfide (S) | | | | | | | | | | | | | | |
| Sulfite (SO ₃) (4265-45-3) | | | | | | | | | | | | | | |
| Surfactants | | | | | | | | | | | | | | |
| Aluminum, total (29-90-8) | | | | | | | | | | | | | | |
| Barium, total (40-39-3) | | | | | | | | | | | | | | |
| Boron, total (40-42-8) | | | | | | | | | | | | | | |
| Cobalt, total (40-48-4) | | | | | | | | | | | | | | |
| Iron, Total (39-89-6) | | | | | | | | | | | | | | |
| Magnesium, total (39-95-4) | | | | | | | | | | | | | | |
| Molybdenum, total (39-98-7) | | | | | | | | | | | | | | |
| Manganese, total (39-96-8) | | | | | | | | | | | | | | |
| Tin, Total (40-31-5) | | | | | | | | | | | | | | |
| Titanium, total (40-32-6) | | | | | | | | | | | | | | |

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NUMBER (If available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|---|------------------------|-----------------------|----------------------|------------------------|----------|--|----------|--|----------|---------------------|-------------------|----------------------|----------------------------|----------|---------------------|
| | a. TEST-ING RE-QUIR-ED | b. BE-LIEVED PRE-SENT | c. BE-LIEVED AB-SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (If available) | | c. LONG TERM AVG. VALUE (If available) | | d. NO. OF ANAL-YSES | a. CONCEN-TRATION | b. MASS | e. LONG TERM AVERAGE VALUE | | f. NO. OF ANAL-YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| METALS, CYANIDE, AND TOTAL PHENOLS | | | | | | | | | | | | | | | |
| 1M. Antimony, Total (7440-38-0) | | | | | | | | | | | | | | | |
| 2M. Arsenic, Total (7440-38-2) | | | | | | | | | | | | | | | |
| 3M. Beryllium, Total, (7440-41-7) | | | | | | | | | | | | | | | |
| 4M. Cadmium, Total (7440-43-9) | | | | | | | | | | | | | | | |
| 5M. Chromium, Total (7440-47-3) | | | | | | | | | | | | | | | |
| 6M. Copper, Total (7440-50-8) | | | | | | | | | | | | | | | |
| 7M. Lead, Total (7439-92-1) | | | | | | | | | | | | | | | |
| 8M. Mercury, Total (7439-97-6) | | | | | | | | | | | | | | | |
| 9M. Nickel, Total (7440-02-0) | | | | | | | | | | | | | | | |
| 10M. Selenium, Total (7782-49-2) | | | | | | | | | | | | | | | |
| 11M. Silver, Total (7440-22-4) | | | | | | | | | | | | | | | |
| 12M. Thallium, Total (7440-28-0) | | | | | | | | | | | | | | | |
| 13M. Zinc, Total (7440-66-6) | | | | | | | | | | | | | | | |
| 14M. Cyanide, Total (57-12-5) | | | | | | | | | | | | | | | |
| 15M. Phenols, Total | | | | | | | | | | | | | | | |

DIOXIN

| | | | | |
|--|--|--|--|------------------|
| 2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1784 01-6) | | | | DESCRIBE RESULTS |
|--|--|--|--|------------------|

CONTINUED FROM THE FRONT

| POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|------------------------------|----------------------------------|---------------------------------|------------------------|----------|---|----------|---|----------|----------------------------|------------------|----------------------|-------------------------------|----------|----------------------------|
| | STREET NO. QUIN- CU | D. BE- LIEVED PRE- SENT | C. RE- LIEVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | d. NO. OF ANAL- YSES | e. CONCENTRATION | f. MASS | g. LONG TERM AVERAGE VALUE | | h. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| | | | | | | | | | | | | | | | |
| /MS FRACTION - VOLATILE COMPOUNDS | | | | | | | | | | | | | | | |
| Acrolein (7-02-8) | | | | | | | | | | | | | | | |
| Acrylonitrile (7-13-1) | | | | | | | | | | | | | | | |
| Benzene (1-43-2) | | | | | | | | | | | | | | | |
| Bis (Chloro- thyl) Ether (2-88-1) | | | | | | | | | | | | | | | |
| Bromoform (1-25-2) | | | | | | | | | | | | | | | |
| Carbon tetrachloride (1-23-5) | | | | | | | | | | | | | | | |
| Chlorobenzene (8-90-7) | | | | | | | | | | | | | | | |
| Chlorodl- methylmethane (4-48-1) | | | | | | | | | | | | | | | |
| Chloroethane (00-3) | | | | | | | | | | | | | | | |
| 1, 2-Chloro- vinyl Ether (0-75-8) | | | | | | | | | | | | | | | |
| 1, Chloroform (86-3) | | | | | | | | | | | | | | | |
| 1, Dichloro- methylmethane (27-4) | | | | | | | | | | | | | | | |
| 1, Dichloro- methylmethane (71-8) | | | | | | | | | | | | | | | |
| 1, 1,1-Dichloro- ethane (75-34-3) | | | | | | | | | | | | | | | |
| 1, 1,2-Dichloro- ethane (107-06-2) | | | | | | | | | | | | | | | |
| 1, 1,1-Dichloro- ethane (75-35-4) | | | | | | | | | | | | | | | |
| 1, 1,2-Dichloro- ethane (78-87-5) | | | | | | | | | | | | | | | |
| 1,3-Dichloro- ethane (542-75-6) | | | | | | | | | | | | | | | |
| 1, Ethylbenzene (1-41-4) | | | | | | | | | | | | | | | |
| 1, Methyl nitride (74-83-9) | | | | | | | | | | | | | | | |
| 1, Methyl nitride (74-87-3) | | | | | | | | | | | | | | | |

CONTINUED FROM PAGE V-4[illegible]

NTINUED FROM THE FRONT

| POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|---------------------------------------|---------------------------------------|--------------------------------------|------------------------|----------|---|----------|--|----------|----------------------------|-----------------------|----------------------|-------------------------------|----------|----------------------------|
| | A. TEST ING REF. QUIN- ED | B. DE- LIV- VED PRE- SENT | C. DE- LIV- VED AS- SENT | A. MAXIMUM DAILY VALUE | | B. MAXIMUM 30 DAY VALUE (if available) | | C. LONG TERM AVRG. VALUE (if available) | | D. NO. OF ANAL- YSES | a. CONCEN- TRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| /MS FRACTION -- BASE/NEUTRAL COMPOUNDS | | | | | | | | | | | | | | | |
| Acenaphthene (1-32-9) | | | | | | | | | | | | | | | |
| Acenaphthylene (8-96-8) | | | | | | | | | | | | | | | |
| Anthracene (0-12-7) | | | | | | | | | | | | | | | |
| Benzidine (87-6) | | | | | | | | | | | | | | | |
| Benzo (a) thracene (55-3) | | | | | | | | | | | | | | | |
| Benzo (a) ene (50-32-8) | | | | | | | | | | | | | | | |
| 3,4-Benzo- ranthene (5-99-2) | | | | | | | | | | | | | | | |
| Benzo (ghi) lene (1-24-2) | | | | | | | | | | | | | | | |
| Benzo (k) ranthene (7-08-9) | | | | | | | | | | | | | | | |
| Bis (2-Chloro- xy) Methane (1-91-1) | | | | | | | | | | | | | | | |
| Bis (2-Chloro- l) Ether (1-44-4) | | | | | | | | | | | | | | | |
| Bis (2-Chloroiso- l) Ether (102-80-1) | | | | | | | | | | | | | | | |
| Bis (2-Ethyl- l) Phthalate (81-7) | | | | | | | | | | | | | | | |
| 4-Bromo- yl Phenyl (101-85-3) | | | | | | | | | | | | | | | |
| Butyl Benzyl alate (85-68-7) | | | | | | | | | | | | | | | |
| 2-Chloro- thalene (8-7) | | | | | | | | | | | | | | | |
| 4-Chloro- yl Phenyl (7005-72-3) | | | | | | | | | | | | | | | |
| Chrysene (01-9) | | | | | | | | | | | | | | | |
| Dibenzo (a,h) racene (0-3) | | | | | | | | | | | | | | | |
| 1,2-Dichloro- ene (95-50-1) | | | | | | | | | | | | | | | |
| 1,3-Dichloro- ene (541-73-1) | | | | | | | | | | | | | | | |

CONTINUED FROM PAGE V-6

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|---------------------|----------------------------|---------------------------|------------------------|----------|---|----------|---|----------|--------------------|------------------|----------------------|----------------------------|----------|--------------------|
| | A. TESTING REQUIRED | B. DE-CONTAMINATED PRESENT | C. DE-CONTAMINATED ASSENT | D. MAXIMUM DAILY VALUE | | E. MAXIMUM 30 DAY VALUE (if available) | | F. LONG TERM AVG. VALUE (if available) | | G. NO. OF ANALYSES | H. CONCENTRATION | I. MASS | J. LONG TERM AVERAGE VALUE | | K. NO. OF ANALYSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued) | | | | | | | | | | | | | | | |
| 22B. 1,4-Dichlorobenzene (106-46-7) | | | | | | | | | | | | | | | |
| 23B. 3,3'-Dichlorobenzidine (91-94-1) | | | | | | | | | | | | | | | |
| 24B. Diethyl Phthalate (84-66-2) | | | | | | | | | | | | | | | |
| 25B. Dimethyl Phthalate (131-11-3) | | | | | | | | | | | | | | | |
| 26B. DI-N-Butyl Phthalate (84-74-2) | | | | | | | | | | | | | | | |
| 27B. 2,4-Dinitrotoluene (121-14-2) | | | | | | | | | | | | | | | |
| 28B. 2,6-Dinitrotoluene (606-20-2) | | | | | | | | | | | | | | | |
| 29B. DI-N-Octyl Phthalate (117-84-0) | | | | | | | | | | | | | | | |
| 30B. 1,2-Diphenylhydrazine (as Azo-benzene) (122-66-7) | | | | | | | | | | | | | | | |
| 31B. Fluoranthene (206-44-0) | | | | | | | | | | | | | | | |
| 32B. Fluorene (86-73-7) | | | | | | | | | | | | | | | |
| 33B. Hexachlorobenzene (118-74-1) | | | | | | | | | | | | | | | |
| 34B. Hexachlorobutadiene (87-68-3) | | | | | | | | | | | | | | | |
| 35B. Hexachlorocyclopentadiene (77-47-4) | | | | | | | | | | | | | | | |
| 36B. Hexachloroethane (67-72-1) | | | | | | | | | | | | | | | |
| 37B. Indeno (1,2,3-cd) Pyrene (193-39-6) | | | | | | | | | | | | | | | |
| 38B. Isophorone (78-59-1) | | | | | | | | | | | | | | | |
| 39B. Naphthalene (91-20-3) | | | | | | | | | | | | | | | |
| 40B. Nitrobenzene (98-95-3) | | | | | | | | | | | | | | | |
| 41B. N-Nitrosodimethylamine (62-75-9) | | | | | | | | | | | | | | | |
| 42B. N-Nitrosodi-N-Propylamine (621-64-7) | | | | | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (If available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|---|--|-----------------------------------|----------------------------------|------------------------|----------|---|----------|---|----------|----------------------------|------------------|----------------------|-------------------------------|----------|----------------------------|
| | a. ANAL- YSIS RE- QUIR- ED | b. DE- LIVERED PRE- SENT | c. DE- LIVERED AS- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (If available) | | c. LONG TERM AVG. VALUE (If available) | | d. NO. OF ANAL- YSES | e. CONCENTRATION | f. MASS | g. LONG TERM AVERAGE VALUE | | h. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| | | | | | | | | | | | | | | | |
| C/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued) | | | | | | | | | | | | | | | |
| 18. N-Nitro-diphenylamine (6-30-8) | | | | | | | | | | | | | | | |
| 18. Phenanthrene (5-01-8) | | | | | | | | | | | | | | | |
| 18. Pyrene (29-00-0) | | | | | | | | | | | | | | | |
| 18. 1,2,4 - Tri- lorobenzene (20-82-1) | | | | | | | | | | | | | | | |
| C/MS FRACTION - PESTICIDES | | | | | | | | | | | | | | | |
| 1. Aldrin (9-00-2) | | | | | | | | | | | | | | | |
| 1. α-BHC (9-84-6) | | | | | | | | | | | | | | | |
| 1. β-BHC (9-85-7) | | | | | | | | | | | | | | | |
| 1. γ-BHC (9-89-9) | | | | | | | | | | | | | | | |
| 1. δ-BHC (9-86-8) | | | | | | | | | | | | | | | |
| 1. Chlordane (74-9) | | | | | | | | | | | | | | | |
| 1. 4,4'-DDT (29-3) | | | | | | | | | | | | | | | |
| 1. 4,4'-DDE (55-9) | | | | | | | | | | | | | | | |
| 1. 4,4'-DDD (54-8) | | | | | | | | | | | | | | | |
| 1. Dieldrin (57-1) | | | | | | | | | | | | | | | |
| 1. α-Endosulfan (5-29-7) | | | | | | | | | | | | | | | |
| 1. β-Endosulfan (5-29-7) | | | | | | | | | | | | | | | |
| 1. Endosulfan ate (11-07-8) | | | | | | | | | | | | | | | |
| 1. Endrin (20-8) | | | | | | | | | | | | | | | |
| 1. Endrin hyde (1-93-4) | | | | | | | | | | | | | | | |
| 1. Heptachlor (44-8) | | | | | | | | | | | | | | | |

| | |
|--|----------------|
| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
|--|----------------|

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

CONTINUED FROM PAGE V-8

| POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|--|---|---|------------------------|----------|---|----------|--|----------|----------------------------|------------------|----------------------|-------------------------------|----------|----------------------------|
| | A. TEST ING. MATERIAL QUANTITY KG. | B. GROUND WATER POLLUTANT SENT | C. GROUND WATER POLLUTANT SENT | D. MAXIMUM DAILY VALUE | | E. MAXIMUM 30 DAY VALUE (if available) | | F. LONG TERM AVRG. VALUE (if available) | | G. NO. OF ANAL- YSES | H. CONCENTRATION | I. MASS | J. LONG TERM AVERAGE VALUE | | K. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| MS FRACTION - PESTICIDES (continued) | | | | | | | | | | | | | | | |
| Heptachlor oxide (24-57-3) | | | | | | | | | | | | | | | |
| PCB-1242 (469-21-9) | | | | | | | | | | | | | | | |
| PCB-1254 (997-69-1) | | | | | | | | | | | | | | | |
| PCB-1221 (104-28-2) | | | | | | | | | | | | | | | |
| PCB-1232 (141-16-5) | | | | | | | | | | | | | | | |
| PCB-1248 (872-29-6) | | | | | | | | | | | | | | | |
| PCB-1260 (996-82-5) | | | | | | | | | | | | | | | |
| PCB-1016 (874-11-2) | | | | | | | | | | | | | | | |
| Toxaphene (11-35-2) | | | | | | | | | | | | | | | |

PAGE V-9

Please print or type in the unshaded areas only.

**FORM
26
NPDES**



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

[illegible]

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

[illegible]

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?
☐ YES (complete the following table) ☐ NO (go to Section III)

| 1. OUTFALL NUMBER (list) | 2. OPERATION(S) CONTRIBUTING FLOW (list) | 3. FREQUENCY | | 4. FLOW | | | | | |
|-----------------------------|--|---|---|--------------------------|---------------------|---|---------------------|-------------------------------|--|
| | | a. DAYS PER WEEK (specify average) | b. MONTHS PER YEAR (specify average) | a. FLOW RATE (in mgd) | | b. TOTAL VOLUME (specify with units) | | c. DUR- ATION (in days) | |
| | | | | 1. LONG TERM AVERAGE | 2. MAXIMUM DAILY | 1. LONG TERM AVERAGE | 2. MAXIMUM DAILY | | |
| | | | | | | | | | |

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (complete Item III-B)

☐ NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☐ YES (complete Item III-C)

☐ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

| 1. AVERAGE DAILY PRODUCTION | | | 2. AFFECTED OUTFALLS (list outfall numbers) |
|-----------------------------|---------------------|--|---|
| a. QUANTITY PER DAY | b. UNITS OF MEASURE | c. OPERATION, PRODUCT, MATERIAL, ETC. (specify) | |
| | | | |

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of waste-water treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table)

☐ NO (go to Item IV-B)

| 1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC. | 2. AFFECTED OUTFALLS | | 3. BRIEF DESCRIPTION OF PROJECT | 4. FINAL COM- PLIANCE DATE | |
|--|----------------------|------------------------|---------------------------------|-------------------------------|-------------------|
| | a. NO. | b. SOURCE OF DISCHARGE | | a. RE- QUIRED | b. PRO- JECTED |
| | | | | | |

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

| 1. POLLUTANT | 2. SOURCE | 1. POLLUTANT | 2. SOURCE |
|--------------|-----------|--------------|-----------|
| | | | |

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (list all such pollutants below)

☐ NO (go to Item VI-B)

☐ **YES (Identify the test(s) and describe their purposes below)**

☐ **NO (go to Section VIII)**

VIII CONTRACT ANALYSIS INFORMATION

☐ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ **NO (go to Section IX)**

| A. NAME | B. ADDRESS | C. TELEPHONE (area code & no.) | D. POLLUTANTS ANALYZED (list) |
|---------|------------|-----------------------------------|----------------------------------|
| | | | |

IX. CERTIFICATION

A. NAME & OFFICIAL TITLE (type or print)

B. PHONE NO. (area code & no.)

C. SIGNATURE

D. DATE SIGNED

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO.

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

| 1. POLLUTANT | 2. EFFLUENT | | | | | | | 3. UNITS (specify if blank) | | 4. INTAKE (optional) | | |
|------------------------------------|------------------------|----------|---|----------|---|----------|--------------------|--------------------------------|---------|----------------------------|----------|--------------------|
| | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| a. Biochemical Oxygen Demand (BOD) | | | | | | | | | | | | |
| b. Chemical Oxygen Demand (COD) | | | | | | | | | | | | |
| c. Total Organic Carbon (TOC) | | | | | | | | | | | | |
| d. Total Suspended Solids (TSS) | | | | | | | | | | | | |
| e. Ammonia (as N) | | | | | | | | | | | | |
| f. Flow | VALUE | | VALUE | | VALUE | | | | | VALUE | | |
| g. Temperature (winter) | VALUE | | VALUE | | VALUE | | | °C | | VALUE | | |
| h. Temperature (summer) | VALUE | | VALUE | | VALUE | | | °C | | VALUE | | |
| i. pH | MINIMUM | MAXIMUM | MINIMUM | MAXIMUM | | | | STANDARD UNITS | | | | |

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NO. (if available) | 2. MARK 'X' | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|--|---------------------|--------------------|------------------------|----------|---|----------|---|----------|--------------------|------------------|---------|----------------------------|----------|--------------------|
| | a. BELIEVED PRESENT | b. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| a. Bromide 24959-67-9) | | | | | | | | | | | | | | |
| b. Chlorine, Total Residual | | | | | | | | | | | | | | |
| c. Color | | | | | | | | | | | | | | |
| d. Faecal Coliform | | | | | | | | | | | | | | |
| e. Fluoride 16984-48-8) | | | | | | | | | | | | | | |
| f. Nitrate-Nitrite (as N) | | | | | | | | | | | | | | |

ITEM V-8 CONTINUED FROM FRONT

| 1. POLLUTANT AND CAS NO. (If available) | 2. MARK 'X' | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|---|---------------------|--------------------|------------------------|----------|---|----------|---|----------|--------------------|------------------|----------------------|----------------------------|----------|--------------------|
| | a. BELIEVED PRESENT | b. BELIEVED ABSENT | 6. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (If available) | | c. LONG TERM AVG. VALUE (If available) | | d. NO. OF ANALYSES | 6. CONCENTRATION | b. MASS | 6. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| g. Nitrogen, Total Organic (as N) | | | | | | | | | | | | | | |
| h. Oil and Grease | | | | | | | | | | | | | | |
| i. Phosphorus as P, Total (7723-14-0) | | | | | | | | | | | | | | |
| j. Radioactivity | | | | | | | | | | | | | | |
| 1) Alpha, total | | | | | | | | | | | | | | |
| 2) Beta, total | | | | | | | | | | | | | | |
| 3) Radium, total | | | | | | | | | | | | | | |
| 4) Radium 226, Total | | | | | | | | | | | | | | |
| k. Sulfate as SO ₄ (14808-79-8) | | | | | | | | | | | | | | |
| l. Sulfide as S | | | | | | | | | | | | | | |
| m. Sulfite as SO ₃ (14265-46-3) | | | | | | | | | | | | | | |
| n. Surfactants | | | | | | | | | | | | | | |
| o. Aluminum, total (1429-90-8) | | | | | | | | | | | | | | |
| p. Barium, total (1440-39-3) | | | | | | | | | | | | | | |
| q. Boron, total (1440-42-8) | | | | | | | | | | | | | | |
| r. Cobalt, total (1440-48-4) | | | | | | | | | | | | | | |
| s. Iron, Total (1439-89-6) | | | | | | | | | | | | | | |
| t. Magnesium, total (1439-95-4) | | | | | | | | | | | | | | |
| u. Molybdenum, total (1439-98-7) | | | | | | | | | | | | | | |
| v. Manganese, total (1439-96-6) | | | | | | | | | | | | | | |
| w. Tin, Total (1440-31-5) | | | | | | | | | | | | | | |
| x. Titanium, total (1440-32-6) | | | | | | | | | | | | | | |

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NUMBER (If available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|---------------------|---------------------|--------------------|------------------------|----------|--|----------|--|----------|--------------------|------------------|----------------------|----------------------------|----------|-----------------|
| | a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (If available) | | c. LONG TERM AVG. VALUE (If available) | | d. NO. OF ANALYSES | e. CONCENTRATION | f. MASS | g. LONG TERM AVERAGE VALUE | | h. NO. ANALYSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| METALS, CYANIDE, AND TOTAL PHENOLS | | | | | | | | | | | | | | | |
| 1M. Antimony, Total (7440-36-0) | | | | | | | | | | | | | | | |
| 2M. Arsenic, Total (7440-38-2) | | | | | | | | | | | | | | | |
| 3M. Beryllium, Total, 7440-41-7) | | | | | | | | | | | | | | | |
| 4M. Cadmium, Total (7440-43-9) | | | | | | | | | | | | | | | |
| 5M. Chromium, Total (7440-47-3) | | | | | | | | | | | | | | | |
| 6M. Copper, Total (7440-50-8) | | | | | | | | | | | | | | | |
| 7M. Lead, Total (7439-92-1) | | | | | | | | | | | | | | | |
| 8M. Mercury, Total (7439-97-6) | | | | | | | | | | | | | | | |
| 9M. Nickel, Total (7440-02-0) | | | | | | | | | | | | | | | |
| 10M. Selenium, Total (7782-49-2) | | | | | | | | | | | | | | | |
| 11M. Silver, Total (7440-22-4) | | | | | | | | | | | | | | | |
| 12M. Thallium, Total (7440-28-0) | | | | | | | | | | | | | | | |
| 13M. Zinc, Total (7440-66-6) | | | | | | | | | | | | | | | |
| 14M. Cyanide, Total (57-12-5) | | | | | | | | | | | | | | | |
| 15M. Phenols, Total | | | | | | | | | | | | | | | |
| DIOXIN | | | | | | | | | | | | | | | |
| 2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6) | | | | DESCRIBE RESULTS | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|--------------------------------------|---------------------------------|--------------------------------|------------------------|----------|---|----------|---|----------|----------------------------|------------------|----------------------|-------------------------------|----------|----------------------------|
| | A. TEST ING RE- QUIR- ED | B. SE- LAVED PRE- SENT | C. SE- LAVED AB- SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | d. NO. OF ANAL- YSES | e. CONCENTRATION | f. MASS | g. LONG TERM AVERAGE VALUE | | h. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| MS FRACTION - VOLATILE COMPOUNDS | | | | | | | | | | | | | | | |
| Acrolein (7-02-8) | | | | | | | | | | | | | | | |
| Acrylonitrile (7-13-1) | | | | | | | | | | | | | | | |
| Benzene (43-2) | | | | | | | | | | | | | | | |
| Bis (Chloro- ethyl) Ether (88-1) | | | | | | | | | | | | | | | |
| Bromoform (25-2) | | | | | | | | | | | | | | | |
| Carbon tetrachloride (23-5) | | | | | | | | | | | | | | | |
| Chlorobenzene (90-7) | | | | | | | | | | | | | | | |
| Chlorodifluoromethane (48-1) | | | | | | | | | | | | | | | |
| Chloroethane (30-3) | | | | | | | | | | | | | | | |
| 2-Chloro- ethyl Vinyl Ether (75-8) | | | | | | | | | | | | | | | |
| Chloroform (6-3) | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane (7-4) | | | | | | | | | | | | | | | |
| Dichlorodibromomethane (1-8) | | | | | | | | | | | | | | | |
| 1,1-Dichloro- ethane (78-34-3) | | | | | | | | | | | | | | | |
| 1,2-Dichloro- ethane (107-06-2) | | | | | | | | | | | | | | | |
| 1,1-Dichloro- propane (78-35-4) | | | | | | | | | | | | | | | |
| 1,2-Dichloro- propane (78-87-5) | | | | | | | | | | | | | | | |
| 1,3-Dichloro- propane (542-75-8) | | | | | | | | | | | | | | | |
| Ethylbenzene (41-4) | | | | | | | | | | | | | | | |
| Methyl chloride (74-83-9) | | | | | | | | | | | | | | | |
| Methyl bromide (74-83-3) | | | | | | | | | | | | | | | |

CONTINUED FROM PAGE V-4

| 1. POLLUTANT AND CAS NUMBER (If available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. NO. OF ANAL- YSES | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---------------------------------------|-----------------------------------|----------------------------------|------------------------|----------|---|----------|---|----------|----------------------------|----------------------------|---------|-------------------------------|----------|------------------------|
| | A. TEST IN- SITU QUIN- SE | B. DE- LIVERED PRE- SENT | C. DE- LIVERED AS- SENT | A. MAXIMUM DAILY VALUE | | B. MAXIMUM 30 DAY VALUE (If available) | | C. LONG TERM AVG. VALUE (If available) | | | A. CON- CENTRA- TION | B. MASS | A. LONG TERM AVERAGE VALUE | | B. NO. ANA- LYSE |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION - VOLATILE COMPOUNDS (continued) | | | | | | | | | | | | | | | |
| 22V. Methylene Chloride (75-09-2) | | | | | | | | | | | | | | | |
| 23V. 1,1,2,2-Tetrachloroethane (79-34-5) | | | | | | | | | | | | | | | |
| 24V. Tetrachloroethylene (127-18-4) | | | | | | | | | | | | | | | |
| 25V. Toluene (108-88-3) | | | | | | | | | | | | | | | |
| 26V. 1,2-Trans-Dichloroethylene (156-60-5) | | | | | | | | | | | | | | | |
| 27V. 1,1,1-Tri-chloroethane (71-55-6) | | | | | | | | | | | | | | | |
| 28V. 1,1,2-Tri-chloroethane (79-00-5) | | | | | | | | | | | | | | | |
| 29V. Trichloroethylene (79-01-6) | | | | | | | | | | | | | | | |
| 30V. Trichlorofluoromethane (75-69-4) | | | | | | | | | | | | | | | |
| 31V. Vinyl Chloride (75-01-4) | | | | | | | | | | | | | | | |
| GC/MS FRACTION - ACID COMPOUNDS | | | | | | | | | | | | | | | |
| 1A. 2-Chlorophenol (95-57-8) | | | | | | | | | | | | | | | |
| 2A. 2,4-Dichlorophenol (120-83-2) | | | | | | | | | | | | | | | |
| 3A. 2,4-Dimethylphenol (105-67-9) | | | | | | | | | | | | | | | |
| 4A. 4,6-Dinitro-O-Cresol (534-52-1) | | | | | | | | | | | | | | | |
| 5A. 2,4-Dinitrophenol (51-28-5) | | | | | | | | | | | | | | | |
| 6A. 2-Nitrophenol (88-75-5) | | | | | | | | | | | | | | | |
| 7A. 4-Nitrophenol (100-02-7) | | | | | | | | | | | | | | | |
| 8A. P-Chloro-M-Cresol (59-50-7) | | | | | | | | | | | | | | | |
| 9A. Pentachlorophenol (87-86-5) | | | | | | | | | | | | | | | |
| 10A. Phenol (108-95-2) | | | | | | | | | | | | | | | |
| 11A. 2,4,6-Tri-chlorophenol (88-06-2) | | | | | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|--------------------------------------|-----------------------------------|----------------------------------|------------------------|----------|---|----------|---|----------|----------------------------|-----------------------|----------------------|-------------------------------|----------|----------------------------|
| | A. TEST ING RE- QUIR- ED | B. DE- LIVERED PRE- SENT | C. DE- LIVERED AB- SENT | B. MAXIMUM DAILY VALUE | | D. MAXIMUM 30 DAY VALUE (if available) | | C. LONG TERM AVG. VALUE (if available) | | D. NO. OF ANAL- YSES | B. CONCEN- TRATION | b. MASS | E. LONG TERM AVERAGE VALUE | | D. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCEN- TRATION | (2) MASS | |
| | | | | | | | | | | | | | | | |
| /MS FRACTION -- BASE/NEUTRAL COMPOUNDS | | | | | | | | | | | | | | | |
| Acenaphthene (132-8) | | | | | | | | | | | | | | | |
| Acenaphthylene (896-8) | | | | | | | | | | | | | | | |
| Anthracene (1212-7) | | | | | | | | | | | | | | | |
| Benzidine (87-5) | | | | | | | | | | | | | | | |
| Benzo (a) fluoranthene (55-3) | | | | | | | | | | | | | | | |
| Benzo (a) pyrene (50-32-8) | | | | | | | | | | | | | | | |
| 3,4-Benzo- fluoranthene (599-2) | | | | | | | | | | | | | | | |
| Benzo (ghi) perylene (124-2) | | | | | | | | | | | | | | | |
| Benzo (k) fluoranthene (108-9) | | | | | | | | | | | | | | | |
| Bis (2-Chloro- oxy) Methane (91-1) | | | | | | | | | | | | | | | |
| Bis (2-Chloro- oxy) Ether (44-4) | | | | | | | | | | | | | | | |
| Bis (2-Chloro- oxy) Ether (102-60-1) | | | | | | | | | | | | | | | |
| Bis (2-Ethyl- oxy) Phthalate (81-7) | | | | | | | | | | | | | | | |
| 4-Bromo- phenyl Phenyl (101-55-3) | | | | | | | | | | | | | | | |
| Butyl Benzyl phosphate (85-68-7) | | | | | | | | | | | | | | | |
| 2-Chloro- thiophene (8-7) | | | | | | | | | | | | | | | |
| 4-Chloro- phenyl Phenyl (7005-72-3) | | | | | | | | | | | | | | | |
| Chrysene (101-9) | | | | | | | | | | | | | | | |
| Dibenzo (a,h) fluoranthene (10-3) | | | | | | | | | | | | | | | |
| 1,2-Dichloro- benzene (95-50-1) | | | | | | | | | | | | | | | |
| 1,3-Dichloro- benzene (541-73-1) | | | | | | | | | | | | | | | |

CONTINUED FROM PAGE V-6

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. NO. OF ANAL- YSES | 4. UNITS | | 5. INTAKE (optional) | | |
|---|-------------------------------------|-----------------------------------|----------------------------------|------------------------|----------|---|----------|---|----------|----------------------------|------------------|---------|-------------------------------|----------|----------------------------|
| | A. TEST ING RE- QUI- RE | B. DE- LIVERED PRE- SENT | C. DE- LIVERED AS- SENT | 6. MAXIMUM DAILY VALUE | | D. MAXIMUM 30 DAY VALUE (if available) | | E. LONG TERM AVG. VALUE (if available) | | | 6. CONCENTRATION | 6. MASS | 5. LONG TERM AVERAGE VALUE | | 5. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued) | | | | | | | | | | | | | | | |
| 228. 1,4-Dichloro- benzene (106-46-7) | | | | | | | | | | | | | | | |
| 238. 3,3'-Dichloro- benzidine (91-94-1) | | | | | | | | | | | | | | | |
| 248. Diethyl Phthalate (84-66-2) | | | | | | | | | | | | | | | |
| 258. Dimethyl Phthalate (131-11-3) | | | | | | | | | | | | | | | |
| 268. Di-N-Butyl Phthalate (84-74-2) | | | | | | | | | | | | | | | |
| 278. 2,4-Dinitro- toluene (121-14-2) | | | | | | | | | | | | | | | |
| 288. 2,6-Dinitro- toluene (608-20-2) | | | | | | | | | | | | | | | |
| 298. Di-N-Octyl Phthalate (117-84-0) | | | | | | | | | | | | | | | |
| 308. 1,2-Diphenyl- hydrazine (as Azo- benzene) (122-66-7) | | | | | | | | | | | | | | | |
| 318. Fluoranthene (206-44-0) | | | | | | | | | | | | | | | |
| 328. Fluorene (86-73-7) | | | | | | | | | | | | | | | |
| 338. Hexachlorobenzene (118-74-1) | | | | | | | | | | | | | | | |
| 348. Hexa- chlorobutadiene (87-68-3) | | | | | | | | | | | | | | | |
| 358. Hexachloro- cyclopentadiene (77-47-4) | | | | | | | | | | | | | | | |
| 368. Hexachloro- ethane (67-72-1) | | | | | | | | | | | | | | | |
| 378. Indeno (1,2,3-cd) Pyrene (193-39-5) | | | | | | | | | | | | | | | |
| 388. Isophorone (78-59-1) | | | | | | | | | | | | | | | |
| 398. Naphthalene (91-20-3) | | | | | | | | | | | | | | | |
| 408. Nitrobenzene (98-95-3) | | | | | | | | | | | | | | | |
| 418. N-Nitro- sodimethylamine (62-75-9) | | | | | | | | | | | | | | | |
| 428. N-Nitrosodi- N-Propylamine (621-64-7) | | | | | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|------------------------------------|------------------------------------|------------------------------------|------------------------|----------|---|----------|---|----------|----------------------------|------------------|----------------------|-------------------------------|----------|----------------------------|
| | A. YES B. NO C. UN- KNOWN | D. YES E. NO F. UN- KNOWN | G. YES H. NO I. UN- KNOWN | A. MAXIMUM DAILY VALUE | | B. MAXIMUM 30 DAY VALUE (if available) | | C. LONG TERM AVG. VALUE (if available) | | D. NO. OF ANAL- YSES | E. CONCENTRATION | F. MASS | G. LONG TERM AVERAGE VALUE | | H. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued) | | | | | | | | | | | | | | | |
| 1. N-Nitro-phenylamine (30-6) | | | | | | | | | | | | | | | |
| 2. Phenanthrene (01-8) | | | | | | | | | | | | | | | |
| 3. Pyrene (100-0) | | | | | | | | | | | | | | | |
| 4. 1,2,4 - Tri- robenzene (182-1) | | | | | | | | | | | | | | | |
| MS FRACTION - PESTICIDES | | | | | | | | | | | | | | | |
| 5. Aldrin (00-2) | | | | | | | | | | | | | | | |
| 6. BHC (84-6) | | | | | | | | | | | | | | | |
| 7. BHC (85-7) | | | | | | | | | | | | | | | |
| 8. BHC (89-9) | | | | | | | | | | | | | | | |
| 9. BHC (86-8) | | | | | | | | | | | | | | | |
| 10. Dieldrin (4-9) | | | | | | | | | | | | | | | |
| 11. DDT (9-3) | | | | | | | | | | | | | | | |
| 12. DDE (5-9) | | | | | | | | | | | | | | | |
| 13. DDD (1-8) | | | | | | | | | | | | | | | |
| 14. Dieldrin (7-1) | | | | | | | | | | | | | | | |
| 15. Endosulfan (9-7) | | | | | | | | | | | | | | | |
| 16. Endosulfan (9-7) | | | | | | | | | | | | | | | |
| 17. Endosulfan (07-8) | | | | | | | | | | | | | | | |
| 18. Dieldrin (8) | | | | | | | | | | | | | | | |
| 19. Dieldrin (93-4) | | | | | | | | | | | | | | | |
| 20. Dieldrin (8) | | | | | | | | | | | | | | | |

ED FROM PAGE V-8

| | |
|--|----------------|
| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
|--|----------------|

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

| POLLUTANT CAS NUMBER (table) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|-----------------------------------|----------------------------------|------------------------|------------------------|------------------------|----------|--|----------|--|----------|-------------------------|-----------------------|----------------------|----------------------------|----------|-------------------------|
| | a. TEST ING. SUB- STAN- CE | b. PL- LIED SENT | c. SE- LIED SENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVG. VALUE (if available) | | d. NO. OF ANAL- YSES | a. CONCEN- TRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANAL- YSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| REACTION - PESTICIDES (continued) | | | | | | | | | | | | | | | |
| techlor | | | | | | | | | | | | | | | |
| 3) | | | | | | | | | | | | | | | |
| 1242 | | | | | | | | | | | | | | | |
| 1-9) | | | | | | | | | | | | | | | |
| 1254 | | | | | | | | | | | | | | | |
| 2-1) | | | | | | | | | | | | | | | |
| 1221 | | | | | | | | | | | | | | | |
| 3-2) | | | | | | | | | | | | | | | |
| 1232 | | | | | | | | | | | | | | | |
| 5-5) | | | | | | | | | | | | | | | |
| 1248 | | | | | | | | | | | | | | | |
| 9-6) | | | | | | | | | | | | | | | |
| 1260 | | | | | | | | | | | | | | | |
| 2-5) | | | | | | | | | | | | | | | |
| 1016 | | | | | | | | | | | | | | | |
| 1-2) | | | | | | | | | | | | | | | |
| ophens | | | | | | | | | | | | | | | |
| 2) | | | | | | | | | | | | | | | |

PAGE V-9



Permits Division

Application Form 1 - General Information

Consolidated Permits Program

This form must be completed by all persons applying for a permit under EPA's Consolidated Permits Program. See the general instructions to Form 1 to determine which other application forms you will need.

DESCRIPTION OF CONSOLIDATED PERMIT APPLICATION FORMS

FORM 1 PACKAGE TABLE OF CONTENTS

The Consolidated Permit Application Forms are:

Form 1 — General Information (*included in this part*);

Form 2 — Discharges to Surface Water (*NPDES Permits*):

2A. Publicly Owned Treatment Works (*Reserved — not included in this package*),

2B. Concentrated Animal Feeding Operations and Aquatic Animal Production Facilities (*not included in this package*),

2C. Existing Manufacturing, Commercial, Mining, and Silvicultural Operations (*not included in this package*), and

2D. New Manufacturing, Commercial, Mining, and Silvicultural Operations (*Reserved — not included in this package*);

Form 3 — Hazardous Waste Application Form (*RCRA Permits — not included in this package*);

Form 4 — Underground Injection of Fluids (*UIC Permits — Reserved — not included in this package*); and

Form 5 — Air Emissions in Attainment Areas (*PSD Permits — Reserved — not included in this package*).

Section A. General Instructions

Section B. Instructions for Form 1

Section C. Activities Which Do Not Require Permits

Section D. Glossary

Form 1 (*two copies*)

SECTION A — GENERAL INSTRUCTIONS

Who Must Apply

With the exceptions described in Section C of these instructions, Federal laws prohibit you from conducting any of the following activities without a permit.

NPDES (*National Pollutant Discharge Elimination System Under the Clean Water Act, 33 U.S.C. 1251*). Discharge of pollutants into the waters of the United States.

RCRA (*Resource Conservation and Recovery Act, 42 U.S.C. 6901*). Treatment, storage, or disposal of hazardous wastes.

UIC (*Underground Injection Control Under the Safe Drinking Water Act, 42 U.S.C. 300f*). Injection of fluids underground by gravity flow or pumping.

PSD (*Prevention of Significant Deterioration Under the Clean Air Act, 72 U.S.C. 7401*). Emission of an air pollutant by a new or modified facility in or near an area which has attained the National Ambient Air Quality Standards for that pollutant.

Each of the above permit programs is operated in any particular State by either the United States Environmental Protection Agency (*EPA*) or by an approved State agency. You must use this application form to apply for a permit for those programs administered by EPA. For those programs administered by approved States, contact the State environmental agency for the proper forms.

If you have any questions about whether you need a permit under any of the above programs, or if you need information as to whether a particular program is administered by EPA or a State agency, or if you need to obtain application forms, contact your EPA Regional office (*listed in Table 1*).

Upon your request, and based upon information supplied by you, EPA will determine whether you are required to obtain a permit for a particular facility. Be sure to contact EPA if you have a question, because Federal laws provide that you may be heavily penalized if you do not apply for a permit when a permit is required.

Form 1 of the EPA consolidated application forms collects general information applying to all programs. You must fill out Form 1 regardless of which permit you are applying for. In addition, you must fill out one of the supplementary forms (*Forms 2 — 5*) for each permit needed under each of the above programs. Item II of Form 1 will guide you to the appropriate supplementary forms.

You should note that there are certain exclusions to the permit requirements listed above. The exclusions are described in detail in Section C of these instructions. If your activities are excluded from permit requirements then you do not need to complete and return any forms.

NOTE: Certain activities not listed above also are subject to EPA administered environmental permit requirements. These include permits for ocean dumping, dredged or fill material discharging, and certain types of air emissions. Contact your EPA Regional office for further information.

Table 1. Addresses of EPA Regional Contacts and States Within the Regional Office Jurisdictions

REGION I

Permit Contact, Environmental and Economic Impact Office, U.S. Environmental Protection Agency, John F. Kennedy Building, Boston, Massachusetts 02203, (617) 223-4635, FTS 223-4635.

Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

REGION II

Permit Contact, Permits Administration Branch, Room 432, U.S. Environmental Protection Agency, 26 Federal Plaza, New York, New York 10007, (212) 264-9880, FTS 264-9880.

New Jersey, New York, Virgin Islands, and Puerto Rico.

REGION III

Permit Contact (*3 EN 23*), U.S. Environmental Protection Agency, 6th & Walnut Streets, Philadelphia, Pennsylvania 19106, (215) 597-8816, FTS 597-8816.

Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia.

REGION IV

Permit Contact, Permits Section, U.S. Environmental Protection Agency, 345 Courtland Street, N.E., Atlanta, Georgia 30365, (404) 881-2017, FTS 257-2017.

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

REGION V

Permit Contact (*5EP*), U.S. Environmental Protection Agency, 230 South Dearborn Street, Chicago, Illinois 60604, (312) 353-2105, FTS 353-2105.

Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

Table 1 (continued)

REGION VI

Permit Contact (6AEP), U.S. Environmental Protection Agency, First International Building, 1201 Elm Street, Dallas, Texas 75270, (214) 767-2765, FTS 729-2765.

Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

REGION VII

Permit Contact, Permits Branch, U.S. Environmental Protection Agency, 324 East 11th Street, Kansas City, Missouri 64106, (816) 758-5955, FTS 758-5955.

Iowa, Kansas, Missouri, and Nebraska.

REGION VIII

Permit Contact (8E-WF), Suite 103, U.S. Environmental Protection Agency, 1860 Lincoln Street, Denver, Colorado 80295, (303) 837-4901, FTS 327-4901.

Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming.

REGION IX

Permit Contact, Permits Branch (E-4), U.S. Environmental Protection Agency, 215 Fremont Street, San Francisco, California 94105, (415) 556-3450, FTS 556-3450.

Arizona, California, Hawaii, Nevada, Guam, American Samoa, and Trust Territories.

REGION X

Permit Contact (M/S 521), U.S. Environmental Protection Agency, 1200 6th Avenue, Seattle, Washington 98101, (206) 442-7176, FTS 399-7176.

Alaska, Idaho, Oregon, and Washington.

Where to File

The application forms should be mailed to the EPA Regional office whose Region includes the State in which the facility is located (see Table 1).

If the State in which the facility is located administers a Federal permit program under which you need a permit, you should contact the appropriate State agency for the correct forms. Your EPA Regional office (Table 1) can tell you to whom to apply and can provide the appropriate address and phone number.

When to File

Because of statutory requirements, the deadlines for filing applications vary according to the type of facility you operate and the type of permit you need. These deadlines are as follows:¹

Table 2. Filing Dates for Permits

| FORM(permit) | WHEN TO FILE |
|------------------------------|---|
| 2A(NPDES) | 180 days before your present NPDES permit expires. |
| 2B(NPDES) | 180 days before your present NPDES permit expires ² , or 180 days prior to start-up if you are a new facility. |
| 2C(NPDES) | 180 days before your present NPDES permit expires ² . |
| 2D(NPDES) | 180 days prior to startup. |
| 3(Hazardous Waste) | Existing facility: Six months following publication of regulations listing hazardous wastes. New facility: 180 days before commencing physical construction. |

Table 2 (continued)

- 4(UIC) A reasonable time prior to construction for new wells; as directed by the Director for existing wells.
- 5(PSD) Prior to commencement of construction.

¹ Please note that some of these forms are not yet available for use and are listed as "Reserved" at the beginning of these instructions. Contact your EPA Regional office for information on current application requirements and forms.

² If your present permit expires on or before November 30, 1980, the filing date is the date on which your permit expires. If your permit expires during the period December 1, 1980 — May 31, 1981, the filing date is 90 days before your permit expires.

Federal regulations provide that you may not begin to construct a new source in the NPDES program, a new hazardous waste management facility, a new injection well, or a facility covered by the PSD program before the issuance of a permit under the applicable program. Please note that if you are required to obtain a permit before beginning construction, as described above, you may need to submit your permit application well in advance of an applicable deadline listed in Table 2.

Fees

The U.S. EPA does not require a fee for applying for any permit under the consolidated permit programs. (However, some States which administer one or more of these programs require fees for the permits which they issue.)

Availability of Information to Public

Information contained in these application forms will, upon request, be made available to the public for inspection and copying. However, you may request confidential treatment for certain information which you submit on certain supplementary forms. The specific instructions for each supplementary form state what information on the form, if any, may be claimed as confidential and what procedures govern the claim. No information on Forms 1 and 2A through 2D may be claimed as confidential.

Completion of Forms

Unless otherwise specified in instructions to the forms, each item in each form must be answered. To indicate that each item has been considered, enter "NA," for not applicable, if a particular item does not fit the circumstances or characteristics of your facility or activity.

If you have previously submitted information to EPA or to an approved State agency which answers a question, you may either repeat the information in the space provided or attach a copy of the previous submission. Some items in the form require narrative explanation. If more space is necessary to answer a question, attach a separate sheet entitled "Additional Information."

Financial Assistance for Pollution Control

There are a number of direct loans, loan guarantees, and grants available to firms and communities for pollution control expenditures. These are provided by the Small Business Administration, the Economic Development Administration, the Farmers Home Administration, and the Department of Housing and Urban Development. Each EPA Regional office (Table 1) has an economic assistance coordinator who can provide you with additional information.

EPA's construction grants program under Title II of the Clean Water Act is an additional source of assistance to publicly owned treatment works. Contact your EPA Regional office for details.



**Engineers
Planners
Economists
Scientists**

F A X

San Francisco Bay Region Office
TEL: 510-251-2426 (2251) FAX: 510-893-8205

Fax #: 415-744-1604
To: Pat Young
Company: USEPA - Region X

Total Pages: 8 4
From: Steve Costa
Date: October 5, 1995

Message:

Pat, Attached is a preliminary plan for including zinc and copper in the Pago Pago Harbor Monitoring Study as we discussed by telephone. Norman Wei and Jim Cox have both reviewed and verbally approved the plan as proposed. I will be in Oakland for the next two weeks, and you can contact me there with comments. Please forward to Doug and Mike for their review. I will mail original for your files.

Regards,

Steve

Copy to Doug &
Mike
Sheila

Memorandum

DATE: 27 September 1995
TO: Pat Young/USEPA
FROM: Steve Costa/CH2M HILL
RE: Background Zinc and Copper Sampling
CC: Norman Wei/Starkist Foods
Jim Cox/Van Camp Seafoods



This memorandum is to follow up on our telephone conversation of last Wednesday (September 20th). Presented below are recommendations for the locations and frequency for supplementary zinc and copper sampling in Pago Pago Harbor. These recommendations are intended to be consistent with the recommended changes in the harbor water quality monitoring (*Result of March 1995 Harbor Water Quality Monitoring, Pago Pago Harbor, American Samoa*, Technical Memorandum prepared by CH2M HILL, 7 July, 1995). We believe that including zinc and copper in the monitoring, for the purpose of determining ambient background levels of these constituents, would be valuable. The determination of the background levels of these constituents is required to determine the applicability of mixing zones.

The rationale for the suggested metals sampling scheme given below includes:

- Sampling should be done in the vicinity of the outfall to be representative of ambient conditions in the harbor, but should not be taken directly in the plume. The objective is to determine the concentrations in the receiving water that will be used for dilution. It is recognized that the ambient concentrations will be partially determined by the existing discharge, since long term average concentrations in the harbor can be affected by the discharge. Thus, sampling should be done when the discharge has been operational for an extended period of time. However, sampling within the plume prior to the completion of initial dilution should be avoided, since this will not be indicative of ambient concentrations in the water that will be entrained in the plume during dilution.
- Sampling should be done at depths representative of the plume locations during initial dilution for the same reasons as given above.
- Sampling should be done at multiple sites in the vicinity of the diffuser. This will allow judgments about whether individual samples represent ambient background or were possibly taken within the plume.
- Control sites at or beyond the harbor entrance (transition zone) should be sampled to assist in data evaluation. Using the understanding of harbor transport processes de-

MEMORANDUM

Costa to Young

27 September 1995

veloped with the previous modeling studies, the data at the harbor entrance can be compared to data from the diffuser vicinity as a check on the validity of the data.

- Limited sampling in the inner harbor should be done. These sample will serve the same purpose as the control site samples described above. In addition, these samples will allow evaluation of sources of background zinc and copper.

The canneries support the recommendations for changes to the harbor water quality monitoring study and associated changes in the modeling study discussed below. In addition, they have reviewed the suggestions made in this memorandum and support the inclusion of zinc and copper sampling as a part of the water quality monitoring as described below in this memorandum. However, as we discussed during our telephone conversation, this support is predicated on implementation of the revisions by a minor permit modification. At this time the canneries would not be in favor of a major modification to the permit. If the revisions cannot be accomplished as a minor modification, then we believe they should be addressed during the permit renewal process.

Based on the points listed above I recommend the following additions to the harbor monitoring study (revised as recommended in the above referenced report):

Frequency of sampling: Sampling will be done at the same frequency recommended for the revised water quality monitoring (approximately every six months; Feb-Mar and Sep-Oct).

Sampling Locations: Samples will be collected at the boundary of the existing mixing zone established for TN and TP, in the transition zone, and in the inner harbor, as follows:

- Diffuser Vicinity: Samples at stations 15, 16, and 18 at depths of 30 feet, 120 feet, and near bottom (approximately 1 meter from the bottom). The two deep samples are intended to establish background for dilution calculations and the shallow sample is for reference to inner harbor samples.
- Harbor Entrance: Samples at station 5 and the proposed new station **5A** at depths of 30 feet, 120 feet, and near bottom.
- Inner Harbor: Samples at stations 13 and 11 at near surface and near bottom depths.

The above description results in a total of 17 samples to be analyzed for zinc and copper. The number of stations and samples can be adjusted based on the results of the first sampling episode. If the background levels are low (at a level that will readily support a mixing zone) and typical of marine systems, then only a limited number of confirmatory samples need be taken during subsequent periods. If the background levels are high then it may prudent to increase the sampling effort during subsequent sampling episodes to fully support the definition of a mixing zone for these metals.

Sample Collection and Analysis:

A study plan will be prepared fully describing the sample collection, shipping, laboratory analysis, and reporting for the metals sampling as a part of the study plan for the revised water quality

MEMORANDUM
Costa to Young
27 September 1995

monitoring. The study plan will address the following points, appropriate for field work in American Samoa:

- Sampling procedures and protocols
- Sample storage and shipping procedures
- Sample location determination
- Sample analysis methods and QA/QC procedures (including laboratory selection)
- Reporting procedures and protocols

The study plan will be submitted to USEPA and ASEPA for comment and approval.

Associated Studies:

The revisions in the water quality monitoring are intended to be consistent with recommendations concerning the modeling study as described in (*Joint Cannery Outfall Model Prediction Verification Study: Report No. 1*, prepared by CH2M HILL, July 1995). It is anticipated that approval, if given, of the recommendations for revision of the harbor water quality monitoring will be concurrent with approval of the recommendations for the modeling study revisions.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 3, 1995

Steven L. Costa
Project Manager
CH2M Hill
P.O. Box 12681
Oakland, CA 94604-2681

Re: QA/QC Review of American Samoa Canneries' Effluent Chemistry Testing

Dear Steve:

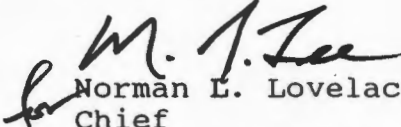
Attached please find a review of the technical report on the chemical analysis of the canneries' effluent, October 1994 sampling, which was conducted by our Quality Assurance Management Section. We note that the review of the data found that pesticides, cyanide and VOCs were either not present or present in the effluent at levels not considered harmful to the environment. As a conservative measure, because the reviewer felt that data quality could have been more completely documented, it was recommended that historical quality control data from previous samplings be submitted, as well as another complete priority pollutant scan be conducted, prior to consideration of eliminating VOC testing.

Considering the nature of the effluent, conditions under which the sampling and shipping are conducted, and the insignificant levels of these constituents detected, we feel that tests for cyanide, pesticides, PCBs and VOCs can be eliminated in future samplings. As previously discussed with you, we are more concerned with the high levels of zinc and copper found in Samoa Packing's effluent and understand that further studies are underway to determine the sources and reduce the loadings. Thus, we will require continued testing for metals which have been detected in past samples: arsenic, cadmium, copper, lead, mercury, selenium, silver and zinc. Please note that we will require a complete priority scan results to be submitted with the canneries' next permit application.

The QA/QC review also found a number of discrepancies or inconsistencies in the reports which are noted in Comments 2-7. Please respond and/or note for future sampling and reports.

Should you have any questions, please call me at (415) 744-1594.

Sincerely,


Norman L. Lovelace
Chief

Office of Pacific Islands (E-4)

Enclosure

cc: Jim Cox, Van Camp Seafood Company, Inc.
Norman Wei, StarKist Seafood Company
Michael Macready, VCS Samoa Packing Company
Barry Mills, StarKist Samoa, Inc.
Tony Tausaga, American Samoa EPA
Sheila Wiegman, American Samoa EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Rcd
3/14/95
Cmy to Mike Lee

March 8, 1995

MEMORANDUM

SUBJECT: Technical Memoranda for the Chemical Analysis of Effluent October 1994 Sampling for VCS Samoa Packing Co. and Starkist Samoa, American Samoa (EPA QAMS Document Control Numbers (DCNs) NPDS019095VSF1 and NPDS020095VSF1, respectively)
Eugenia McNaughton

FROM: Eugenia McNaughton, Ph.D., Environmental Scientist
Quality Assurance Management Section (QAMS), P-3-2

THROUGH: *Vance S. Fong*
Vance S. Fong, P.E., Chief
Quality Assurance Management Section

TO: Pat Young, American Samoa Program Manager
Office of Pacific Island, E-4

As requested, the subject technical memoranda, Chemical Analysis of Effluent, October 1994 Sampling, prepared by CH2M Hill for VCS Somoa Packing Co. (VCS) and Starkist Samoa, Inc. (Starkist), and dated January 27, 1995, were reviewed. The review was based on information provided in 40 CFR Part 136, in the EPA memorandum dated January 17, 1995 and the response to EPA comments by CH2M Hill dated February 8, 1995.

The technical memoranda were reviewed to ascertain whether the deletion of volatile organic compounds (VOCs) analyses can be recommended as requested in the CH2M Hill letter of February 2, 1995. The memoranda were also reviewed for quality assurance/quality control (QA/QC) of methods and procedures. In addition to comments related to these issues, a number of discrepancies or inconsistencies were identified during the review of the memoranda, and are presented below.

Ms. Pat Young
March 1, 1995

Although a review of the data indicates that pesticides, cyanide and VOCs are either not present or present in the effluent at levels that are not considered harmful to the environment, it is apparent that data quality could be more completely documented. QAMS recommends that the complete analysis be repeated for the next test event. At the same time, if the historical data could be presented with supporting QC data, a better informed decision could be made regarding the testing program.

Comments

1. Since positive results for bromoform, 2-butanone, acetone, toluene, and xylenes are reported in Table 3 of the memoranda, a more conservative approach should be taken in considering the elimination of VOC analyses for Starkist and VCS. Quality control data from the previous samplings should be reviewed before a recommendation to scale back or eliminate sampling and analysis for VOCs can be made.
2. The QA/QC procedures could not be fully evaluated due to the lack of relevant information in the memoranda. There are no statements regarding accuracy and precision in the reports. As the response to comments memorandum from CH2M Hill indicates, the 200 series methods for metals and EPA Method 625 for semivolatile organic compounds (SVOCs) employ tighter criteria for calibration verification than do SW-846 methods. It should be noted that while Table 1 indicates EPA 8270/625 for the analysis of SVOCs, the sample results reported in Attachment II for SVOCs indicate that Method 625 was followed. This discrepancy should be addressed in future reports.
3. Quality control data was lacking for the following analytes:
 - A. The VOC analysis data included the acceptable percent recoveries for surrogate compounds and acceptable results for method blank analysis. No information was provided concerning matrix spike (MS) or matrix spike duplicate (MSD) percent recoveries or relative percent difference (RPD).
 - B. The semi-volatile organic compounds (SVOCs) analysis report included the acceptable percent recoveries for surrogate compounds and acceptable results for a method blank analysis. No information was provided concerning percent recovery or RPD for MS/MSD analyses.

Ms. Pat Young
March 1, 1995

C. The metals report included an acceptable method blank; however, percent recoveries for laboratory control sample (LCS) and matrix spike analyses, and the RPD for duplicate analysis were not reported.

D. The total recoverable phenol and cyanide analyses report contained no QC information. Method blank results, percent recoveries for LCS and matrix spike analyses, and the RPD for duplicate analysis were not reported.

4. [VCS Samoa Packing Co.; Table 3, Summary of VCS Samoa Packing Co. Effluent Chemistry Sample Results; Attachment II, Laboratory Data Report] Table 3 lists the total phenol result for the October 1994 sampling as 28 ug/L; however the analytical results for Inorganics in Water presented in Attachment II indicate a concentration of 0.28 mg/L, equivalent to 280 ug/L. It is recommended that the original laboratory report be reviewed to ascertain the correct concentration, and if necessary, Table 3 be revised to indicate 280 ug/L total phenol.
5. [VCS and Starkist Memoranda: Table 1, Effluent Sample Analyses and Handling Procedures; Attachment I, Chain of Custody Forms] Although both Tables 1 of the VCS and Starkist memoranda indicate that the samples for VOC analysis were collected in 40 mL vials and preserved by chilling to 4°C, the chain of custody forms indicate that these samples were also preserved with hydrochloric acid. If the samples were not acidified, the 7-day holding time established for benzene, ethylbenzene, and toluene was exceeded. If these samples are routinely acidified, Table 1 should indicate that fact.

In addition, although the CH2M Hill response to comments indicates that samples collected in February were collected without headspace, it is unclear whether the samples were acidified.

6. [VCS and Starkist: Table 1, Effluent Sample Analyses and Handling Procedures] Table 1 of the memoranda indicates that samples for phenol analysis are collected in a 500 mL plastic container. 40 CFR Part 136 and Methods for Chemical Analysis of Water and Wastes specify glass containers only.
7. [VCS and Starkist: Table 1, Effluent Sample Analyses and Handling Procedures; Attachment II, Laboratory Data Report, Analytical Results, Metals in Water]

Ms. Pat Young
March 1, 1995

A. In both memoranda, Table 1 lists the analytical method for silver as EPA 7760, an atomic absorption (AA) direct aspiration method, while the analytical results for metals in water from attachment II indicates that silver was analyzed by EPA 6010, inductively coupled plasma (ICP) spectroscopy.

B. In the Starkist memorandum, Table 1 indicates selenium analysis by EPA 7740; however, the analytical results for selenium in attachment II indicate that selenium was analyzed by EPA 6010. In addition, the reporting detection limit for selenium for the Starkist effluent is 50 ug/L (a typical Method 6010 detection limit), while the reporting detection limit for the VCS effluent is 5 ug/L (a typical Method 7740 detection limit). The discrepancy regarding methods should be addressed in future reports. The laboratory report should be consulted as to which value is correct and the report revised accordingly.

Questions or comments regarding this review should be referred to Eugenia McNaughton, EPA QAMS, at (415) 744-1498.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 3, 1995

Steven L. Costa
Project Manager
CH2M Hill
P.O. Box 12681
Oakland, CA 94604-2681

Re: QA/QC Review of American Samoa Canneries' Effluent Chemistry Testing

Dear Steve:

Attached please find a review of the technical report on the chemical analysis of the canneries' effluent, October 1994 sampling, which was conducted by our Quality Assurance Management Section. We note that the review of the data found that pesticides, cyanide and VOCS were either not present or present in the effluent at levels not considered harmful to the environment. As a conservative measure, because the reviewer felt that data quality could have been more completely documented, it was recommended that historical quality control data from previous samplings be submitted, as well as another complete priority pollutant scan be conducted, prior to consideration of eliminating VOC testing.

Considering the nature of the nature of the effluent, conditions underwhich the sampling and shipping are conducted, and the insignificant levels of these constituents detected, we feel that tests for cyanide, pesticides, PCBs and VOCs can be eliminated in future samplings. As previously discussed with you, we are more concerned with the high levels of zinc and copper found in Samoa Packing's effluent and understand that further studies are underway to determine the sources and reduce the loadings. Thus, we will require continued testing for metals which have been detected in past samples: arsenic, cadmium, copper, lead, mercury, selenium, silver and zinc. Please note that we will require a complete priority scan results to be submitted with the canneries' next permit application.

The QA/QC review also found a number of discrepancies or inconsistencies in the reports which are noted in Comments 2-7. Please respond and/or note for future sampling and reports.

| | | | | | | |
|-----------------------|-----------|-----|--------------------|--|--|--|
| SYMBOL | E-4 | E-4 | | | | |
| SURNAME | M. Tector | my | | | | |
| DATE | 4/3/95 | NL | 4/3/95 | | | |
| U.S. EPA CONCURRENCES | | | OFFICIAL FILE COPY | | | |

-2-

Should you have any questions, please call me at (415) 744-1594.

Sincerely,

Norman L. Lovelace
Chief
Office of Pacific Islands (E-4)

Enclosure

cc: Jim Cox, Van Camp Seafood Company, Inc.
Norman Wei, StarKist Seafood Company
Michael Macready, VCS Samoa Packing Company
Barry Mills, StarKist Samoa, Inc.
Tony Tausaga, American Samoa EPA
Sheila Wiegman, American Samoa EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

March 1, 1995

Steven L. Costa
Project Manager
CH2M Hill
P.O. Box 12681
Oakland, CA 94604-2681

Re: American Samoa Canneries' Effluent Chemistry Testing

Dear Steve:

We have reviewed the February 1994 results of the priority pollutant analyses for the canneries' effluents, as required by their respective NPDES permits, as well as their requests of February 2, 1995, to reduce the scope of these biannual tests. Based on our review of the four priority pollutant analyses conducted under the present permits, metals analyses collected under the previous permits, and results of the American Samoa Environmental Protection Agency's toxicity study of Pago Pago Harbor, we agree that the scope of these tests can be reduced as indicated below. However, we will require a complete effluent priority pollutant scan to be conducted for each cannery when they apply for permit renewals. The tests can be reduced as follows:

1. Delete the tests for cyanide, pesticides and PCBs, as these constituents have not been detected in the scans and there is no reason to believe the cannery effluents will normally contain these constituents.
2. Eliminate the tests for VOCs. We agree with your assessment that laboratory contamination may have been the reason acetone was detected and that the levels of constituents detected (xylene, toluene and bromoform) are not significant. Also, under normal circumstances, VOC loadings are not expected in cannery effluent and only small quantities of VOC's have only been sporadically detected to date.
3. Continue testing for the following metals: arsenic, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc. Eliminate testing for other metals as they were not detected in the four scans.

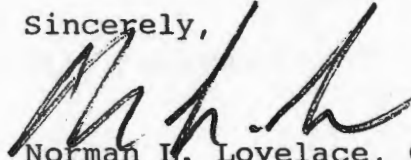
Although chromium, mercury and lead have either not been detected in the four priority pollutant scans conducted or they were detected in very low quantities, some traces of these constituents have been detected in past effluent monitoring tests. Thus we are requiring continued monitoring for these metals and source studies for those metals found in

high concentrations, such as zinc, as triggered under the NPDES permit.

Our Quality Assurance Management Section is reviewing your February 8, 1995 response to our comments regarding the priority pollutant reports of October 1993 and February 1994. Any significant comments impacting the analyses you will be conducting in mid-March will be forwarded to you as soon as their review is completed.

Please call Pat Young at 415/744-1594 if you have any questions regarding the above.

Sincerely,



Norman H. Lovelace, Chief
Office of Pacific Island and Native
American Programs (E-4)

cc: Jim Cox, Van Camp Seafood Company, Inc.
Norman Wei, StarKist Seafood Company
Michael Macready, VCS Samoa Packing Company
Barry Mills, StarKist Samoa, Inc.
Tony Tausaga, American Samoa EPA
Sheila Wiegman, American Samoa EPA

MEMORANDUM

TO: Pat Young, American Samoa Program Manager
Office of Pacific Island, E-4

FROM: Quality Assurance Management Section (QAMS), P-3-2

DATE: March 1, 1995

SUBJECT: Technical Memoranda for the Chemical Analysis of Effluent
October 1994 Sampling for VCS Samoa Packing Co. and Starkist
Samoa, American Samoa (EPA QAMS Document Control Numbers
(DCNs) NPDS019095VSF1 and NPDS020095VSF1, respectively)

As requested the subject technical memoranda, Chemical Analysis of Effluent, October 1994 Sampling, prepared by the CH2M Hill for VCS Samoa Packing Co. (VCS) and Starkist Samoa, Inc. (Starkist), and dated January 27, 1995, were reviewed. The review was based on information provided in 40 CFR Part 136, in the EPA memorandum dated January 17, 1995 and the response to EPA comments by CH2M Hill dated February 8, 1995.

The technical memoranda were reviewed to ascertain whether the deletion of volatile organic compounds (VOCs) analyses can be recommended as requested in the CH2M Hill letter of February 2, 1995. The memoranda were also reviewed for quality assurance/quality control (QA/QC) of methods and procedures. In addition to comments related to these issues, a number of discrepancies or inconsistencies were identified during the review of the memoranda, and are presented below.

Comments

1. Since positive results for bromoform, 2-butanone, acetone, toluene, and xylenes are reported in Table 3 of the memoranda, it is recommended that a conservative approach be taken in considering the elimination of VOC analyses for Starkist and VCS. It is recommended that the quality control data from the previous samplings be reviewed before recommending that sampling and analysis for VOCs be scaled back or eliminated.
2. The quality assurance/quality control procedures (QA/QC) could not be fully evaluated due to the lack of QA/QC information provided in the memoranda. Statements regarding accuracy and precision of the analyses are not made in the reports. As the response to comments memorandum from CH2M Hill indicates, the 200 series methods for metals and method 625 for semivolatile organic compounds (SVOCs) employ a tighter

Ms. Pat Young
March 1, 1995

Environmental Services Assistance Team (ESAT)
Reviewer: Doug Lindelof, Senior Investigation Coordinator
ESAT WORK UNIT DOCUMENT (WUD) NUMBER: 2615
ESAT-QA-9A-11243/TUNAO25.DTA
Documents returned to QAMS

criteria for calibration verification than do SW-846 methods. It should be noted that while Table 1 indicates EPA 8270/625 for the analysis of SVOCs, the sample results reported in Attachment II for SVOCs indicate that Method 625 was employed by the laboratory for the analysis. This discrepancy should be addressed in future reports.

- A. The VOC analyses report included the acceptable percent recoveries for surrogate compounds and a acceptable results for method blank analysis. No information is provided concerning matrix spike (MS) or matrix spike duplicate (MSD) percent recoveries or relative percent difference (RPD).
 - B. The semi-volatile organic compounds (SVOCs) analysis report included the acceptable percent recoveries for surrogate compounds and acceptable results for a method blank analysis. No information is provided concerning percent recovery or RPD for MS/MSD analyses.
 - C. The metals report included an acceptable method blank; however, percent recoveries for laboratory control sample (LCS) and matrix spike analyses, and the RPD for duplicate analysis were not reported.
 - D. The total recoverable phenol and cyanide analyses report contained no QC information. Method blank results, percent recoveries for LCS and matrix spike analyses, and the RPD for duplicate analysis were not reported.
3. [VCS Samoa Packing Co.; Table 3, Summary of VCS Samoa Packing Co. Effluent Chemistry Sample Results; Attachment II, Laboratory Data Report] Table 3 lists the total phenol result for the October 1994 sampling as 28 ug/L; however the analytical results for Inorganics in Water presented in Attachment II indicate a concentration of 0.28 mg/L, equivalent to 280 ug/L. It is recommended that the original laboratory report be reviewed to ascertain the correct concentration, and if necessary, revise Table 3 to indicate 280 ug/L total phenol.
 4. [VCS and Starkist Memoranda: Table 1, Effluent Sample Analyses and Handling Procedures; Attachment I, Chain of Custody Forms] Although Table 1 of the VCS and Starkist memoranda indicates that the samples targeted for VOC analysis were collected in 40 mL vials and preserved by chilling to 4°C, the chain of custody forms indicate that the samples collected for VOC analyses were also preserved with hydrochloric acid. The holding times for benzene, ethylbenzene, and toluene exceed the 7 day analytical holding time in non-acidified samples established for these analytes.

Ms. Pat Young
March 1, 1995

Environmental Services Assistance Team (ESAT)
Reviewer: Doug Lindelof, Senior Investigation Coordinator
ESAT WORK UNIT DOCUMENT (WUD) NUMBER: 2615
ESAT-QA-9A-11243/TUNA025.DTA
Documents returned to QAMS

In addition, Although the CH2M Hill response to comments indicates that samples collected in February were collected without headspace, it is unclear whether the samples were acidified. //

5. [VCS and Starkist: Table 1, Effluent Sample Analyses and Handling Procedures] Table 1 of the memoranda indicates that samples for phenol analysis are collected in a 500 ml plastic container. 40 CFR Part 136 and Methods for Chemical Analysis of Water and Wastes specify glass containers only. //
6. [VCS and Starkist: Table 1, Effluent Sample Analyses and Handling Procedures; Attachment II, Laboratory Data Report, Analytical Results, Metals in Water]
 - A. In both memoranda, Table 1 lists the analytical method for silver as EPA 7760, an atomic absorption (AA) direct aspiration method, while the analytical results for metals in water from attachment II indicates that silver was analyzed by EPA 6010, inductively coupled plasma (ICP) spectroscopy.
 - B. In the Starkist memorandum, Table 1 indicates selenium analysis by EPA 7740; however, the analytical results for selenium in attachment II indicate that selenium was analyzed by EPA 6010. In addition, the reporting detection limit for selenium for the Starkist effluent is 50 ug/L, while the reporting detection limit for the VCS effluent is 5 ug/L.

Technical assistance was provided by Doug Lindelof of the Environmental Services Assistance Team/ICF Kaiser. Questions or comments regarding this review can be referred to , EPA QAMS, at (415) 744-xxxx.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

Steven L. Costa
Project Manager
CH2M Hill
P.O. Box 12681
Oakland, CA 94604-2681

Re: American Samoa Canneries' Effluent Chemistry Testing

Dear Steve:

We have reviewed the February 1994 results of the priority pollutant analyses for the canneries' effluents, as required by their respective NPDES permits, as well as their requests of February 2, 1995, to reduce the scope of these biannual tests. Based on our review of the four priority pollutant analyses conducted under the present permits, metals analyses collected under the previous permits, and results of the American Samoa Environmental Protection Agency's toxicity study of Pago Pago Harbor, we agree that the scope of these tests can be reduced as indicated below. However, we will require a complete effluent priority pollutant scan to be conducted for each cannery when they apply for permit renewals. The tests can be reduced as follows:

1. Delete the tests for cyanide, pesticides and PCBs, as these constituents have not been detected in the scans and there is no reason to believe the cannery effluents will normally contain these constituents.
2. Eliminate the tests for VOCs. We agree with your assessment that laboratory contamination may have been the reason acetone was detected and that the levels of constituents detected (xylene, toluene and bromoform) are not significant. Also, under normal circumstances, VOC loadings are not expected in cannery effluent and only small quantities of VOC's have only been sporadically detected to date.
3. Continue testing for the following metals: arsenic, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc. Eliminate testing for other metals as they were not detected in the four scans.

| | | | | | | |
|---------|---------|--------------|---------|--|--|--|
| SYMBOL | E-4 | E-4 | U-5-1 | | | |
| SURNAME | pyang | py for M Lee | DL | | | |
| DATE | 2/28/95 | 2/28/95 | 2/28/95 | | | |

U.S. EPA CONCURRENCES

OFFICIAL FILE COPY

Although chromium, mercury and lead have either not been detected in the four priority pollutant scans conducted or they were detected in very low quantities, some traces of these constituents have been detected in past effluent monitoring tests. Thus we are requiring continued monitoring for these metals and source studies for those metals found in high concentrations, such as zinc, as triggered under the NPDES permit.

Our Quality Assurance Management Section is reviewing your February 8, 1995 response to our comments regarding the priority pollutant reports of October 1993 and February 1994. Any significant comments impacting the analyses you will be conducting in mid-March will be forwarded to you as soon as their review is completed.

Please call Pat Young at 415/744-1594 if you have any questions regarding the above.

Sincerely,

Norman L. Lovelace, Chief
Office of Pacific Island and Native
American Programs (E-4)

cc: Jim Cox, Van Camp Seafood Company, Inc.
Norman Wei, StarKist Seafood Company
Michael Macready, VCS Samoa Packing Company
Barry Mills, StarKist Samoa, Inc.
Tony Tausaga, American Samoa EPA
Sheila Wiegman, American Samoa EPA

StarKist Samoa Metals Analyses of Effluent

| Date | Cad- mium | Chro- mium | Lead mg/l | Mer- cury | Zinc mg/l | Ar- senic | Cop- per | Sil- ver |
|----------------------|--------------|---------------|--------------|---------------|----------------|--------------|-------------|----------------|
| Per- mit Appl. | 0.24 | .04 | .010 | .002 | .32 | | | |
| 7/87- 6/89 | No | re- sults | | | | | | |
| 1/90 TW | .06* | .20 | .70* | <.005 + | .21* | | | |
| 1/90 Eff | .06* | .12 | .40* | <.005 + | .43* | | | |
| 10/90 TW | .059* | .12 | .17+ | .042* | .27* | | | |
| 10/90 Eff | .024+ | .04 | .10+ | .002+ | .32* | | | |
| 7/91 TW | .03+ | .17 | .37* | .0015 + | .22* | | | |
| 7/91 Eff | .01+ | .09 | .17+ | .0015 + | .10* | | | |
| 1/92 TW | <.01+ | <.03 | <.01+ | .0040 + | .045 | | | |
| 1/92 Eff | <.01+ | <.03 | <.01+ | .0004 + | .105* | | | |
| 2/93 PP | ND | ND | ND | ND | .092 | .006 | ND | .130* |
| 6/93 Eff | .02+ | .05 | .005 | .002+ | .147* | | | |
| 9/93 Eff | .02+ | .019 | .005 | .000- 26 + | .109* | | | |
| 10/93 PP | ND | ND | ND | ND | .130* .180* | ND .014 | ND | .033* .039* |
| 2/94 PP | .010 | ND | ND | ND | .140* | ND | .015* | ND |
| 3/94 Eff | .002+ | .001 | .001 | .000- 05+ | .1* | | | |
| 7/94 Eff | .02+ | .05 | .1+ | .002+ | .16* | | | |
| 10/94 PP | ND | ND | ND | ND | .084 | ND | ND | ND |

StarKist Samoa VOCs/Semi-VOCs Analyses of Effluent

| Date | Phenol mg/l | 4-methy- phenol | Total Phenol | Acetone mg/l | Bromoform mg/l |
|-----------------|----------------|--------------------|-----------------|-----------------|-------------------|
| Permit Appl. | | | | | |
| 7/87- 6/89 | | | | | |
| 1/90 TW | | | | | |
| 1/90 Eff | | | | | |
| 10/90 TW | | | | | |
| 10/90 Eff | | | | | |
| 7/91 TW | | | | | |
| 7/91 Eff | | | | | |
| 1/92 TW | | | | | |
| 1/92 Eff | | | | | |
| 2/93 PP | .500 | .260 | NA | .024 | .0064 |
| 6/93 Eff | | | | | |
| 9/93 Eff | | | | | |
| 10/93 PP | .430 | .530 | 1.300 | .028 | .0077 |
| 2/94 PP | .045 | .360 | .120 | ND | .007 |
| 3/94 Eff | | | | | |
| 7/94 Eff | | | | | |
| 10/94 PP | .140 | .290 | .015 | ND | .0078 .0064 |

Samoa Packing Metals Analyses of Effluent

| Date | Cad- mium | Chro- mium | Lead mg/l | Mer- cury | Zinc mg/l | Ar- senic | Cop- per | Sil- ver |
|----------------------|--------------|---------------|--------------|----------------------|----------------|--------------|-------------|-------------|
| Per- mit Appl. | 0.4 | 1.0 | 1.6 | <.005 | 0.23 | | | |
| 7/87 | .011+ | .02 | <.02+ | .0012 + | .79* | | | |
| 1/88 | .011+ | .035 | <.02+ | <.001 + | .534* | | | |
| 6/88 | .008 | <.01 | .06+ | <.001 + | .383* | | | |
| 12/88 | .014+ | <.01 | .02+ | .001+ | ---- | | | |
| 6/89 | .018+ | .01 | .07+ | <.00 01+ | .522* | | | |
| 1/90 | .04+ | .09* | .04+ | <.005 + | .41* | | | |
| 10/90 | .40* | 1.0* | 1.6* | .002+ | ---- | | | |
| 3/91 | .05* | .87* | .3* | <.005 + | .23* | | | |
| 8/91 | <.02+ | <.005 | <.005 | .0005 + | .15* | | | |
| 10/92 | <.02+ | .008 | <.005 | .0014 + | .30* | | | |
| 2/93 PP | ND | ND | .0043 + | ND + | .380* | .0098 | .021* | ND |
| 10/93 PP | ND | ND | ND .0025 | ND + | .400* .450* | ND .015 | ND ND | ND |
| 2/94 PP | ND | ND | ND | ND + | .660* | .025 | .013* | .022+ |
| 10/94 PP | ND | ND | ND | Not ana- lyzed | .760* | .025 | .023* | .016 |
| 11/94 Eff | <.005 | <.005 | <.01+ | <.00- 04 + | .4* | | | |

Samoa Packing VOCs/Semi-VOCs Analyses of Effluent

| Date | Benzo- ic Ac- id | Phenol mg/l | 4- me- thy- phe- nol | Total Phe- nol | Ace- tone | 2- Bu- ta- noe | Tou- lene mg/l | To- tal Xy- lene mg/l |
|--------------|------------------------|----------------|----------------------------------|----------------------|--------------|-------------------------|----------------------|-----------------------------------|
| 7/87 | | | | | | | | |
| 1/88 | | | | | | | | |
| 6/88 | | | | | | | | |
| 12/88 | | | | | | | | |
| 6/89 | | | | | | | | |
| 1/90 | | | | | | | | |
| 10/90 | | | | | | | | |
| 3/91 | | | | | | | | |
| 8/91 | | | | | | | | |
| 10/92 | | | | | | | | |
| 2/93 PP | .120 | .110 | .670 | NA | .045 | .011 | ND | ND |
| 10/93 Eff | ND | ND | 1.6 | .570 | .038 | .027 | .0062 | ND |
| 2/94 PP | ND | .069 | .770 | .084 | ND | ND | ND | .016 |
| 10/94 PP | ND | .120 | 2.80 | .028 | .073 | ND | ND | ND |

TW = Thaw Water; Eff = Effluent, results submitted with DMR;
PP = Priority Pollutant Scan; + = exceeds chronic criteria;
* = exceeds acute criteria

2/28/95

Terry:

Doug said you/he had questions re: letter to canneries:

1. Source of VOCs: Probably laboratory contamination (see attached letters from Costa). Also, may be paint thinner (toulene-); don't know what source of bromoform may be but levels of VOCs detected are either below detection limits or no criteria established, so we did not think them to be significant enough so that continued testing would be needed.

2. We are told that phenols are probably from pesticides used to keep place sanitary. We are not requesting them to eliminate semi-volatiles testing.

2. Have added phrase re: source studies being triggered for high levels of metals. Mike Lee has also mentions this further in his recent inspection report. The pollution prevention component of the permits required source assessment studies which both canneries did but we're asking that Samoa Packing do further investigations, develop and implement plan to reduce metals in its effluent.

Call me if you have questions at 4-1594. CH2MHill is sending field equipment to Samoa this week. Would appreciate hearing back from us ASAP re: tests so they can pack accordingly. Thanks.



Call me to pick up after you've concurred.
Thanks.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

February 8, 1995

MEMORANDUM

SUBJECT: Request for Review of Effluent Chemistry Analyses

TO: Vance Fong
Chief, Quality Assurance Management Section (P-3-2)

FROM: Pat Young *Pat*
American Samoa Program Manager
Office of Pacific Islands (E-4)

Attached are two reports on effluent chemistry analyses for priority pollutants for two tuna canneries in American Samoa, VCS Samoa Packing Company and StarKist Samoa. The canneries' NPDES permits require them to run priority pollutant scans on their effluent semiannually. The canneries are requesting to reduce the scope of their testing (see letter of February 2, 1995). I am asking your assistance in reviewing and making recommendations on the following:

1. Item #3 in their letter which requests deleting testing for VOCs.

2. General review of methods and procedures for QA/QC. Please note that Peter Husby reviewed the previous results and his comments are attached (see letter of January 17, 1995). There were no significant findings. However, his comments were not received in time by CH2MHill to be addressed or revised in this round of tests.

As another set of analyses is scheduled for mid-March, we would like to respond to the canneries' request as soon as possible, so we would appreciate your assistance in our response. Please call me at 4-1594 to answer any questions. Thanks.

Enclosures

StarKist Samoa Metals Analyses of Effluent

| Date | Cad- mium | Chro- mium | Lead mg/l | Mer- cury | Zinc mg/l | Ar- senic | Cop- per | Sil- ver |
|----------------------|--------------|---------------|--------------|---------------|----------------|--------------|-------------|----------------|
| Per- mit Appl. | 0.24 | .04 | .010 | .002 | .32 | | | |
| 7/87- 6/89 | No | re- sults | | | | | | |
| 1/90 TW | .06* | .20 | .70* | <.005 + | .21* | | | |
| 1/90 Eff | .06* | .12 | .40* | <.005 + | .43* | | | |
| 10/90 TW | .059* | .12 | .17+ | .042* | .27* | | | |
| 10/90 Eff | .024+ | .04 | .10+ | .002+ | .32* | | | |
| 7/91 TW | .03+ | .17 | .37* | .0015 + | .22* | | | |
| 7/91 Eff | .01+ | .09 | .17+ | .0015 + | .10* | | | |
| 1/92 TW | <.01+ | <.03 | <.01+ | .0040 + | .045 | | | |
| 1/92 Eff | <.01+ | <.03 | <.01+ | .0004 + | .105* | | | |
| 2/93 PP | ND | ND | ND | ND | .092 | .006 | ND | .130* |
| 6/93 Eff | .02+ | .05 | .005 | .002+ | .147* | | | |
| 9/93 Eff | .02+ | .019 | .005 | .000- 26 + | .109* | | | |
| 10/93 PP | ND | ND | ND | ND | .130* .180* | ND .014 | ND | .033* .039* |
| 2/94 PP | .01.0 | ND | ND | ND | .140* | ND | .015* | ND |
| 3/94 Eff | .002+ | .001 | .001 | .000- 05+ | .1* | | | |
| 7/94 Eff | .02+ | .05 | .1+ | .002+ | .16* | | | |
| 10/94 PP | ND | ND | ND | ND | .084 | ND | ND | ND |

StarKist Samoa VOCs/Semi-VOCs Analyses of Effluent

| Date | Phenol mg/l | 4-methy- phenol | Total Phenol | Acetone mg/l | Bromoform mg/l |
|-----------------|----------------|--------------------|-----------------|-----------------|-------------------|
| Permit Appl. | | | | | |
| 7/87- 6/89 | | | | | |
| 1/90 TW | | | | | |
| 1/90 Eff | | | | | |
| 10/90 TW | | | | | |
| 10/90 Eff | | | | | |
| 7/91 TW | | | | | |
| 7/91 Eff | | | | | |
| 1/92 TW | | | | | |
| 1/92 Eff | | | | | |
| 2/93 PP | .500 | .260 | NA | .024 | .0064 |
| 6/93 Eff | | | | | |
| 9/93 Eff | | | | | |
| 10/93 PP | .430 | .530 | 1.300 | .028 | .0077 |
| 2/94 PP | .045 | .360 | .120 | ND | .007 |
| 3/94 Eff | | | | | |
| 7/94 Eff | | | | | |
| 10/94 PP | .140 | .290 | .015 | ND | .0078 .0064 |

TW = Thaw Water; Eff = Effluent, results submitted with DMR;
PP = Priority Pollutant Scan; + = exceeds chronic criteria;
* = exceeds acute criteria



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

February 24, 1995

Steven L. Costa
Project Manager
CH2M Hill
P.O. Box 12681
Oakland, CA 94604-2681

Re: **Comments on Planned March 1995 Field Studies and Reports
Submitted For the Joint Cannery Outfall**

Dear Steve:

Thank you for your letter of February 7, 1995 which provides summaries of the field studies required by the canneries' NPDES permits, scheduled for mid-March in American Samoa. Our comments are as follows:

Coral Reef Survey No. 2. No changes are expected to be made to the original study plan for reasons stated in your letter.

Sediment Monitoring Study No. 3. Although not required by the NPDES permits, we (the American Samoa Environmental Protection Agency and USEPA) would appreciate continued testing for metals, as originally requested by ASEPA for the first two studies. The results would add to the data base being collected on Pago Pago Harbor.

Effluent Bioassay Test No. 5. Comments on the fourth bioassay tests (October 1994) have been submitted to you under separate cover by Amy Wagner, EPA Life Scientist. While the laboratory procedures and results showed improvements, there were a few minor procedural problems which should be rectified during the next test. Amy has discussed this with the laboratory personnel.

Priority Pollutant Analyses No. 5. The request to reduce analyses for certain of constituents is being considered and addressed in a separate letter. However, we did take into account the following in our consideration of your request:

StarKist Samoa. In our review of past metals analyses (including DMR reports for past and present permits), we noted that although the metal levels have decreased over the past years for StarKist, the zinc levels are still slightly above the water quality criteria. We note also that while the four priority pollutant scans generally did not detect cadmium, chromium, lead or mercury, the results of effluent tests for cadmium, chromium, lead, mercury and zinc, submitted biannually by StarKist with

their Discharge Monitoring Reports for 1993-1994, show that chromium, lead and mercury were detected. We request that StarKist submit to us information on the methods and detection limits used in the DMR effluent analyses and provide possible explanations for the differences in the metals results from the priority pollutant scans and DMR reports.

VCS Samoa Packing. Samoa Packing's levels for zinc and copper are very high. The priority pollutant scans show a range of zinc levels from 0.380 mg/l to 0.760 mg/l (acute/chronic criteria = 0.095/0.086 mg/l), with the 1994 levels about twice that of those in 1993. Copper levels range from 0.013 mg/l to 0.023 (acute criteria = 0.00029 mg/l). In 1993 Samoa Packing hired a consultant, as part of its pollution prevention program, to evaluate the heavy metals in its effluent, and recommendations were made regarding correcting high zinc levels. No evaluation was made for copper. We are unclear, based on the October 26, 1994 update of the Pollution Prevention Program, as to whether any of the consultant's recommendations were ever implemented. In view of the consistently high levels of these metals found, we are requesting that further investigation be made to determine sources of these metals. Based on this investigation, a plan should be developed and implemented to reduce the zinc and copper levels of the effluent.

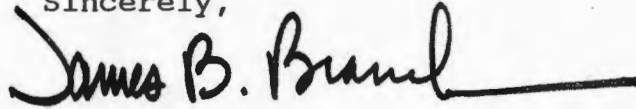
October 1994 Report. Our Quality Assurance Management Section is reviewing the results of the October 1994 report as well as your February 8, 1995 response to our comments on the priority pollutant reports of October 1993 and February 1994. Any significant comments impacting the March 1995 analyses will be forwarded to you as soon as this review is completed.

Receiving Water Quality Monitoring Program. We are still missing the following reports: November 1992; February, April, May through December 1993; and January through December 1994. Arrangements should be made with ASEPA to determine what data is missing and what additional receiving water sampling should be done in March to make up for missing data. Also, any of the missing reports which are available should be sent to us as soon as possible.

Pollution Prevention Plan. The canneries are required by their permits to submit a pollution prevention plan and provide updates of the plan annually. We have not received the October 1994 update for StarKist Samoa and would appreciate receiving it as soon as possible.

Please call Pat Young at 415/744-1594 if you have any questions. I will be in Samoa from March 10-24 and Pat will be there from March 17-24, and arrangements could be made through ASEPA should we need to meet.

Sincerely,



for Norman L. Lovelace, Chief
Office of Pacific Island and Native
American Programs (E-4)

cc: Jim Cox, Van Camp Seafood Company, Inc.
Norman Wei, StarKist Seafood Company
Michael Macready, VCS Samoa Packing Company
Barry Mills, StarKist Samoa, Inc.
Tony Tausaga, American Samoa EPA
Sheila Wiegman, American Samoa EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

FEB 24 1995

Barry Mills
General Manager
StarKist Samoa, Inc.
P.O. Box 368
Pago Pago, American Samoa 96799

Re: NPDES Inspection Report

Dear Mr. Mills:

On October 5, 1994 Mike Lee of my office performed a National Pollutant Discharge Elimination System (NPDES) inspection of the StarKist Samoa, Inc.'s tuna cannery. The inspection was performed to assess the cannery's conformance with its NPDES permit requirements. A copy of the inspection report has been enclosed for your information and a copy has been provided to the American Samoa Environmental Protection Agency.

As you are aware the NPDES permit requires several studies to be performed to determine the effects the discharge may be having on the receiving waters (Pago Pago Harbor) and verify outfall modeling predictions. As you are also aware and as indicated in the inspection report these studies have or are currently being performed. With regard to such items as the toxicity testing, priority pollutant scans, dye/tracer studies, sediment monitoring, eutrophication study, coral reef study, and model verification the inspection report only discusses these in general. As we have been doing we will continue to primarily deal with these studies and reports individually and/or combined as they are submitted for our review and comments. It appears that these studies are progressing satisfactorily.

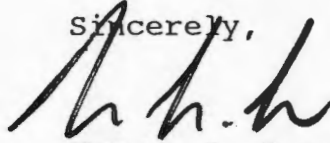
With regard to conformance with required receiving water monitoring it appears that this area needs further attention as discussed in the inspection report to ensure submittal of the monitoring data/reports. With respect to the pollution prevention program a update needs to be submitted regarding the program's planned and proposed components. The permit requires annual updates on the pollution prevention program. Those pollution prevention program components which are noted in the inspection report are the fishmeal plant improvements, fishing vessel education, effluent and inplant wastestream heavy metals evaluation/followup and development of a spill prevention, control and countermeasure plan.

Please provide a written response within forty-five (45) days of the date of this letter which addresses our concerns as noted in

this letter and the inspection report. Please also provide a copy of your response to the ASEPA.

Thank you for your cooperation during the inspection of your facility. If you have any questions regarding this inspection report, please contact Mike Lee at (415) 744-1592 or Pat Young at (415) 744-1594.

Sincerely,

A handwritten signature in dark ink, appearing to read 'N. L. Lovelace', written in a cursive style.

Norman L. Lovelace
Chief, Office of Pacific Island and
Native American Programs

Enclosure

cc: N. Wei, StarKist Samoa
S. Costa, CH2M Hill
T. Tausaga, ASEPA
S. Wiegman, ASEPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

OFFICE OF PACIFIC ISLAND AND NATIVE AMERICAN PROGRAMS

NPDES INSPECTION REPORT

FACILITY: StarKist Samoa, Inc.
Pago Pago, American Samoa
(Tuna Cannery)

NPDES PERMIT NO.: AS0000019

DATE OF INSPECTION: October 5, 1994

INSPECTION PARTICIPANTS:

USEPA: Mike Lee
ASEPA: Vai Aiavao
FACILITY: Cliff Johnson
Chris Pena

REPORT PREPARED BY: Mike Lee

DATE OF REPORT: February 24, 1995



NPDES Compliance Inspection Report

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

Section A: National Data System Coding

Transaction Code
1 N 2 5 NPDES
3 A S 0 0 0 0 1 9 11 12 9 4 1 0 0 5 17 Inspection Type
18 C Inspector
19 J Fac Type
20 2

Remarks

Reserved

Facility Evaluation Rating

BI

OA

Reserved

67 69

70 371 N72 N

73 74

75

80

Section B: Facility Data

Name and Location of Facility Inspected

StarKist Samoa, Inc.
Pago Pago, Tutuila, American SamoaEntry Time ☒ AM ☐ PM

8:30

Permit Effective Date

10/27/92

Exit Time/Date

10:30am/10-05-94

Permit Expiration Date

10/26/97

Name(s) of On-Site Representative(s)

Cliff Johnson
Chris Pena

Title(s)

WWTP Engr./Superintendent
Manager/Supervisor

Phone No(s)

Name, Address of Responsible Official

Barry Mills
StarKist Samoa, Inc.
P.O. Box 368, Pago Pago, AS 96799

Title

General Manager

Phone No.

Contacted
☐ Yes ☒ No

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

| | | | | | | | |
|---|----------------------|---|---------------------------|---|-------------------------|---|--------------------------|
| S | Permit | S | Flow Measurement | N | Pretreatment | S | Operations & Maintenance |
| S | Records/Reports | N | Laboratory | S | Compliance Schedules | S | Sludge Disposal |
| S | Facility Site Review | S | Effluent/Receiving Waters | S | Self-Monitoring Program | | Other: |

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

SEE ATTACHED INSPECTION REPORT

Name(s) and Signature(s) of Inspector(s)

M. J. Lee
Michael J. Lee

Agency/Office/Telephone

USEPA Reg.9/OPINAP(E-4)/415-744-1592

Date

2/24/95

Signature of Reviewer

Agency/Office

Date

Regulatory Office Use Only

Action Taken

Date

Compliance Status

☐ Noncompliance
☐ Compliance

NPDES INSPECTION REPORT

STARKIST SAMOA, INC.
PAGO PAGO, AMERICAN SAMOA

INTRODUCTION

On October 5, 1994 EPA conducted an NPDES inspection of the Starkist Samoa, Inc. (Starkist Samoa) tuna cannery, Pago Pago, American Samoa.

The cannery receives whole tuna which is processed into canned tuna and dried fish meal. Waste streams from the cannery process consist mainly of fish wastes, press water and pre-cooker juice which are treated by the cannery's wastewater treatment plant or disposed at a ocean dumping site. Sea water is used as a once through thaw water and does not pass through the DAF treatment unit. Wastewater treatment is provided by the facility's dissolved air flotation (DAF) unit. The DAF operation is chemically enhanced by the addition of a coagulant (alum) and polymers to facilitate additional solids recovery. Effluent from the DAF treatment facility is discharged through a joint outfall pipe shared with the Samoa Packing Company tuna cannery.

An Administrative Order was issued to Starkist Samoa in June 1990 for violations of water quality standard based effluent limitations and failure to implement high strength waste segregation of cannery wastestreams. A new joint cannery outfall was completed in early 1992. Effluent from the new joint cannery outfall pipe is discharged approximately 7,000 feet from the cannery in the middle harbor area of Pago Pago Harbor. The joint cannery outfall replaces the old Starkist Samoa harbor outfall which discharged immediately out from the cannery in the inner Pago Pago Harbor area. The discharge from the wastewater treatment facility is regulated under an NPDES Permit, AS0000019, issued in October 1992.

The cannery also has an ocean dumping permit to dispose of DAF sludges and cannery high strength waste (press water and pre-cooker juices). These wastes are barged to a designated ocean disposal site which is regulated separately under an ocean dumping permit, OD 93-01. The ocean disposal site is approximately 5.5 miles southwest of Pago Pago Harbor. Both canneries, Starkist Samoa and Samoa Packing Company, utilize the same ocean dumping site and vessel to dispose sludges and high strength wastes.

The Administrative Order issued in June 1990 was rescinded in September 1994 as a result of implementing high strength waste segregation, extending the cannery effluent discharge to the middle harbor area and complying with the new NPDES permit effluent limitations.

The cannery has a daily tuna processing capacity of about 550 tons/day. For the period of May through October, 1994 the cannery processed tuna at an average rate of approximately 431 tons/day. The cannery discharged effluent from the DAF through the joint cannery outfall at an average flow rate of 1.03 MGD for the period of May through October, 1994.

The NPDES permit issued to Starkist Samoa in October 1992 required a number of studies to be performed to determine the impacts of the discharge on receiving waters and verify outfall modeling predictions. These studies include effluent monitoring, receiving water monitoring, toxicity testing, priority pollutant scans, dye/tracer studies, sediment monitoring, eutrophication study, coral reef survey, verification of modeling predictions, and a wastewater treatment system evaluation. Due to the extensiveness of the required studies Starkist Samoa has contracted a consulting firm, CH2M Hill, to perform the required studies. The permit also required development of a pollution prevention program.

EFFLUENT MONITORING REPORTS

Based on review of the submitted Starkist Samoa Quarterly Discharge Monitoring Reports (DMR) for the reporting period of May 1994 through October 1994 there were no apparent exceedances of effluent limitations with a few exceptions of total nitrogen, temperature and pH.

Effluent total nitrogen monthly average and daily maximum for the month of August 1994 were reported as 1248 lbs/day and 2778 lbs/day, respectively. Effluent total nitrogen monthly average and daily maximum limitations are 1200 lbs/day and 2100 lbs/day, respectively. Effluent temperature daily maximums for the months of July and September 1994 were reported as 96F for the respective months. Effluent temperature daily maximum limitation is 95F. Effluent pH monthly minimum and daily maximum for the month of October 1994 were reported as 6.3 and 9.8, respectively. Effluent pH monthly minimum and daily maximum limitations are 6.5 and 8.6, respectively.

RECEIVING WATER MONITORING REPORTS

The NPDES permit requires submittal of quarterly receiving water (RW) monitoring reports. These quarterly RW reports have not been performed and submitted on a very consistent basis. In a letter dated September 1, 1994 to Starkist Samoa it was indicated that we had not received RW monitoring reports for the following months: November 1992; February, April, and May through December 1993; and January through September 1994. RW monitoring reports are necessary to document water quality at the outfall, at areas near the zone of initial dilution and zone of mixing boundaries, and at areas beyond. Both canneries are responsible for insuring that the RW monitoring is carried out and data submitted to us.

The canneries and the ASEPA have arranged for ASEPA to perform the RW monitoring and provide the canneries with the results for compliance and reporting purposes.

Although it has been indicated by the cannery's consultant, CH2M Hill, that they have some of the missing data (through July 1993) and that they will be working with ASEPA on improving RW monitoring data submittals, quarterly RW monitoring reports have not been submitted as required. Based on discussions with ASEPA, RW sampling was routinely being performed but not analyzed due to monetary problems. We understand that the monetary problems have been resolved. However, Starkist Samoa, Samoa Packing and ASEPA need to reevaluate the current arrangement(s) so that RW monitoring data can be submitted on a quarterly basis as required by the permit. Also, past RW monitoring data collected but not submitted needs to be submitted as soon as possible to satisfy reporting requirements.

ADDITIONAL NPDES PERMIT STUDIES/REPORTS

The following is a brief update of the various studies and reports required by the permit. All of the following studies are being performed jointly by Starkist Samoa and Samoa Packing Company via their consultant, CH2M Hill. Any review comments specific to the respective studies and/or reports will be covered outside of this inspection report as has been the case to date.

TOXICITY TESTING

Toxicity testing required by the permit is required semi-annually. We have received the February 1993, October 1993, February 1994 and October 1994 toxicity tests. The October 1994 toxicity test results are currently under review. Toxicity tests are being performed in conjunction with the priority pollutant scans. The next toxicity test is scheduled for March 1995. Although there appears to be some toxicity indicated by the tests it appears that this is not causing a toxicity problem given the characteristics and dilution of the discharge.

PRIORITY POLLUTANT SCANS

Priority pollutant scans are required by the permit to be done concurrently with the toxicity tests. Starkist Samoa has submitted priority pollutant scans in February 1993, October 1993, February 1994 and October 1994. The next priority pollutant scan is scheduled for March 1995. The first three pollutant scans have been reviewed and comments provided to Starkist Samoa and CH2M Hill. Comments primarily pertained to appropriate methods, detection limits and QA/QC procedures. The cannery consultant will be incorporating our comments, as appropriate, prior to the March priority pollutant scan. CH2M Hill has requested that certain chemical tests be discontinued, such as, cyanide, VOCs, pesticides

and some metals. Based on previous pollutant scans it appears likely that chemical tests for the above pollutants can be discontinued.

DYE/TRACER STUDIES

Two joint cannery dye/tracer studies are required by the permit and were to be performed during each of the two primary seasons of the year. The first dye/tracer study was performed in February 1993 and results submitted in July 1993. The second dye/tracer study was conducted in October 1993 and report submitted in October 1994. Based on the two dye/tracer studies the final report states that the studies confirm assumptions and predictions used to determine diffuser location and mixing zone geometry. The final report is still under review and any comments will be provided separately.

SEDIMENT MONITORING STUDIES

Starkist Samoa is to conduct annual sediment monitoring studies. Sediment monitoring study reports were submitted in February 1993 and October 1994. The third sediment monitoring study is to be completed in March 1995. Comments provided to the cannery's consultant have been incorporated into the previous and will be carried over to the upcoming March monitoring study. Additional metals monitoring may be requested as was for the second monitoring study.

EUTROPHICATION STUDY

A Eutrophication Study/Report is required by the permit within one year of the effective date. The consultant has reported (Sept. 21, 1994) that all field and laboratory work has been completed for the study and needs to take into consideration model verification and dye study data results. It was anticipated that the study report would be completed by October 1994. However, the report has not been submitted as of the writing of this report.

CORAL REEF STUDY

A Coral Reef Study is required within the first year of the permit and every two years thereafter. The first Coral Reef Study was conducted in February 1993 with the final report submitted in August 1993. The next Coral Reef Study is schedule to be performed in March 1995.

MODEL VERIFICATION

Annual Model Verification reports are also required by the permit. The plan for the Model Verification Study was approved in November 1993. It was anticipated that the model verification report would be submitted by October 1994. However, due to

technical complications CH2M Hill anticipated it would be submitted in February 1995. The Study is dependent on completion of the Dye Study and receiving water monitoring data. As mentioned above in this report the receiving water monitoring has been inconsistent and may be hindering completion of the model verification report.

WASTEWATER TREATMENT SYSTEM EVALUATION

A Wastewater Treatment System Evaluation is required by the permit to be completed within one year of the effective date and once prior to the permit expiration date of the permit. Starkist Samoa performed a wastewater treatment system evaluation in May 1993. The evaluation was performed by CH2M Hill and include several recommendations. These recommendations included air flow measurement for compressed air supply, improve coagulant dosage monitoring, prepare operations procedures for the treatment system and install high level sump alarms. Based on Starkist Samoa's September 22, 1993 letter all of the recommendations have or are being addressed. The air flow measurement device was estimated to be installed in November 1993. Coagulant dosage monitoring has been implemented. The operations procedures manual was estimated to be completed by December 1993. The recommendation to install an sump alarm system was being evaluated and Starkist Samoa was implementing closer monitoring of sump systems.

The above mentioned wastewater treatment system recommendations and their implementation were briefly discussed during the October 1994 site inspection. However, Starkist representatives were not sure on the status of these particular items. A brief update regarding their actual implementation and/or status is requested.

POLLUTION PREVENTION PLAN

The permittee is to develop and implement a Pollution Prevention Program within six months of the permit's effective date. The permit requires the permittee to review facility systems and recommend actions, investigate heavy metal sources, management of fishing vessels, and develop a spill prevention, control and countermeasure (SPCC) plan. In addition, the permit requires annual program updates to be submitted.

A Pollution Prevention Program (PP Program) report was submitted in October 1993 which included various planned and proposed components of a source reduction and waste minimization programs. The components of the program included replacement of the Fishmeal Plant, Stormwater Prevention Plan, Waste Oil Recycling, Water Conservation, Bilge Water Program, Training (Safety and Environmental Issues), and Heavy Metals.

All of the above mentioned PP Program components were not fully discussed during the site visit and inspection in October.

This was the apparent result of new personnel not being familiar with the current PP Program status and time constraints during the site visit.

The major component of the Starkist Samoa PP Program is the replacement of the existing Fishmeal Plant. The replacement of the Fishmeal Plant is to include installation of a centrifuge and multi-stage distillation unit for oil and protein recovery from the cooker juice and press liquor high strength waste streams, and odor control system at a cost of \$6.5 million. Construction time was estimated to be 15 months. The status of the Fishmeal Plant improvements is unclear at this time. An update on the progress toward completing this project should be provided. In addition, Starkist Samoa reported that they have spent over \$400,000 on refurbishing equipment at the Fishmeal Plant in the three years previous to 1993, as part of their PP Program.

Starkist Samoa's PP Program also includes a stormwater pollution prevention plan. Starkist Samoa's stormwater discharges are covered under a General Stormwater NPDES permit (NOI submitted in 9/92). Starkist Samoa has five stormwater outfalls which discharge along and under the dock area.

As part of the General Stormwater NPDES permit requirements and as part of the PP Program Starkist Samoa submitted a Stormwater PP (SWPP) Plan in March 1993. The SWPP Plan included a number of improvements to eliminate storm drains and runoffs to minimize commingling of process water and stormwater, which were reportedly completed in October 1993. Some of the major tasks reportedly completed were the following: sealing of eight unused outfall pipes to ensure no discharge of process water; boiler washdown water directed to wastewater treatment plant; redirection and sealing of several process plant drains; Can Plant access road improvements to prevent oil/hazardous wastes from entering stormwater drainage system; sealing areas around stormwater down spouts; and partial completion of the fuel tank containment area to the wastewater treatment plant.

During the site inspection several of the stormwater down spouts, ground catchments and other drainage areas were visited. All of the areas visited appeared to be improved adequately to prevent process waters from entering drainages or redirect flows to other desired areas.

The SWPP Plan incorporates best management practices including a preventive maintenance program, good housekeeping practices, spill prevention and response procedures, security, annual inspections, erosion prevention, and training.

Starkist Samoa's PP Program also includes the burning of waste oil in its boilers, arrangements with ASPA to incinerate some of its waste oil, and working with Southwest Marine to collect and

treat bilge water from fishing vessels. These appear to be all good programs and should be continued or pursued.

However, it was unclear if the PP Program included a program to notify and/or educate fishing vessels of environmental responsibilities regarding the nondisposal of waste oils and other wastes into the harbor. Oil spills and waste disposal attributed to fishing vessels continues to be a problem in the harbor area and needs to be continually addressed. The PP Program should incorporate a program that informs, educates and monitors fishing vessels of their responsibilities if this has not already been implemented.

The PP Program also discussed sources of heavy metals. Starkist Samoa's July 1991 Report reported that sources of heavy metals were from the harbor water which was used for thawing frozen fish. As a result, the thaw water intake was extended to a deeper location in December 1991 and subsequent Starkist Samoa monitoring data reported decreases in metal concentrations. Sampling in January 1992 reported thaw water effluent concentrations of the following: Cadmium <0.010 mg/L; Chromium <0.030 mg/L; Lead <0.010 mg/L; Mercury 0.004 mg/L; and Zinc 0.045 mg/L. Reported Cadmium, lead and mercury concentrations appeared above the chronic water quality criteria of 0.0093 mg/L, 0.0085 mg/L and 0.000025 mg/L, respectively. Cadmium and lead concentrations may or may not be above the water quality criteria due to test detection limits appearing higher than water quality criteria levels.

While the PP Program discussed heavy metals in the thaw water there did not appear to be a discussion on inplant wastestreams and DAF effluent for heavy metals. Recent cannery effluent priority pollutant scans appear to indicate non-detection of heavy metals except for zinc and silver. Effluent zinc and silver concentrations appear slightly above American Samoa water quality standards. Sources of zinc maybe due to corrosion inhibitors, other corrosion problems and/or source water. However, the semi-annual heavy metals effluent data, reported in the cannery quarterly DMRs, have reported detection of cadmium, mercury and zinc. Some of these heavy metal concentrations have also been above acute and/or chronic water quality criteria. This has mainly been with respect to cadmium, mercury and zinc. It would be expected that both the effluent priority pollutant scans and the semi-annual effluent monitoring would correlate better in the detection or non-detection of heavy metals in the effluent. While it does not appear, given the initial dilution of the outfall and recent toxicity test results, that these heavy metal concentrations are causing toxicity, the PP Program should investigate source identification of metals in the effluent and examine ways of reducing those metals.

A final part required of the Starkist Samoa PP Program is to develop a Spill Prevention, Control and Countermeasure (SPCC) Plan.

Due to aboveground storage tank volumes of petroleum products Starkist Samoa is required to have a SPCC Plan. SPCC regulations are covered under 40 CFR Part 112. The submitted PP Program mentions existing diesel fuel storage tanks and that improvements to the containment (bund) area are to be performed. The fuel storage tank area was also visited during the October 1994 site visit. The secondary containment area appeared to be recently lined with concrete. Proposed plans call for drainage from this area to be routed to the wastewater treatment plant. An SPCC Plan needs to be developed, approved and implemented for the tank farm area.

*Peter - respond**ok w/
Peter
2/17/95**Copy to Vance
w/ Peter's response*

FAX No. 707-822-0567

FAX Cover Sheet**INFORMATION TO:**Name: PAT YOUNGCompany: USEPA

Office No.: _____

Fax No.: 415-744-1604Name: SHEILA WIEGMANCompany: ASEPA

Office No.: _____

FAX No.: 011-684-633-5801**INFORMATION FROM:**Name: STEVE COSTACompany: CH2M HILLSubject: RESPONSE TOCOMMENTS ON PRIORITYPOLLUTANT MONITORINGDate: 9 FEB 95TOTAL NO. OF PAGES TRANSMITTED INCLUDING COVER SHEET 9IF YOU DO NOT RECEIVE ALL OF THE PAGES, PLEASE CALL 707-826-7662REMARKS: ATTACHED FYI.ORIGINAL COPY IN MAILPLEASE REVIEW AND CALL OR FAX COMMENTS510-251-2426 ext 2251 VOX510 893-8205 FAX

*Copy to Peter H.
Mike Lee*

Engineers
Planners
Economists
Scientists

8 February 1995

OPE30702.EL.PM

Pat Young
American Samoa Project Manager
Office of Pacific Island and Native American Programs
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105

Dear Pat:

Subject: Response to Comments on Priority Pollutant Monitoring:
American Samoa Canneries (Oct 93 and Feb 94 Samples).

We have received and reviewed your comment letter dated January 17, 1995 concerning the chemistry sampling of October 1993 and February 1994 for the American Samoa tuna canneries. I understand that there were no significant discrepancies noted in the review but there were some minor discrepancies in methods referenced and sample documentation. Your review letter was received after the sampling, analysis, and submittal of the October 1994 sample results and we were not able to implement appropriate changes to that report. The EPA comments will be incorporated into the next sampling for the American Samoa canneries, which is scheduled to occur in March 1995. The attached memorandum provides response to your comments and indicates the changes in the sample analysis that will occur in the future testing events. We appreciate the time and effort given to the review of the reports.

Sincerely,

CH2M HILL

A handwritten signature in cursive script, appearing to read "Steve Costa".

Steve Costa
Project Manager

enclosure

cc: Norman Wei, StarKist Foods
James Cox, VanCamp Seafood
Togipa Tausaga, ASEPA
Sheila Wiegman, ASEPA
Mike Lee, USEPA

MEMORANDUM**CH2M HILL**

TO: Pat Young/USEPA
Sheila Wiegman/ASEPA

COPIES: File

FROM: Steve Costa/CH2M HILL/SFO
Karen Glatzel/Glatzel & Associates

DATE: 8 February 1995

SUBJECT: Response to Comments on Priority Pollutant Monitoring Reports:
American Samoa Tuna Canneries (Oct 93 and Feb 94 Sampling Reports)

PROJECT: OPE30702.EL.PM

This memorandum provides our response to comments from USEPA concerning the priority pollutant monitoring reports for effluent from StarKist Samoa, Inc. (AS0000019) and VCS Samoa Packing Company (AS0000027) for the October 1993 and February 1994 sampling. The comments from U.S. EPA, dated January 17, 1995 are included as Attachment I.

Response to Comment No. 1

2. [The methods used in the February 1994 sampling report are equivalent methods for the analysis of inorganics to those used in the October 1993 report. The difference in the methods is in the calibration verification process. In both methods a continuous calibration verification is conducted. The EPA 200 series test methods used in the October 1993 sampling (used for drinking water and effluent) has a ± 5 -percent calibration tolerance. The SW-846 test methods used in the February 1994 sampling (for solid waste and effluent) employ a calibration tolerance of ± 10 -percent. If the calibration verification is within $\pm 5\%$ the SW-846 method results can be reported as series 200 results. The calibration verification tolerance is the only difference between the methods. Since the testing being done is in the nature of a screening level study, in support of the toxicity tests, we do not believe the difference in the test procedures is significant. The results of the tests would not have been significantly or substantially different based on the test method specification. However, if USEPA believes that the 200 series must be used for these tests we will so instruct the laboratory for future tests.]

Response to Comment No. 2

The semi-volatile organics in the February 1994 sampling were analyzed using Method 8270 and employing the Method 625 list of constituents. The method used in the February 1994 sampling report are equivalent methods for the analysis of semi-volatile organics as those used in the October 1993 report. The difference in the methods is in the calibration

MEMORANDUM

Costa to Young and Wiegman
8 February 1995 - Page 2
OPE30702.EL.PM

verification process. In both methods a continuous calibration verification is conducted. The EPA 625 test method used in the October 1993 sampling has a ± 10 -percent calibration tolerance. The 8270 test method used in the February 1994 sampling employs a calibration tolerance of ± 30 -percent. If the calibration verification is within ± 10 -percent the 8270 method results can be reported as 625 method results. The calibration verification tolerance is the only difference between the methods. Since the testing being done is in the nature of a screening level study, in support of the toxicity tests, we do not believe the difference in the test procedures is significant. The results of the tests would not have been significantly or substantially different based on the test method specification. However, if USEPA believes that the 625 method must be used for these tests we will so instruct the laboratory for future tests.

1?

Response to Comment No. 3

We agree that the graphite furnace method will provide better detection levels. However, we note that salt water interference (in the StarKist effluent) may not permit test results to be reported at the levels of the water quality criteria. We will instruct the laboratory to use the graphite furnace methods 220.2 for copper analysis 272.2 silver analysis in future test episodes.

oh

Response to Comment No. 4

The sampling kits for the February 1994 sampling were shipped to American Samoa as checked baggage with the project staff doing the sampling to insure the kits would be available on site. In typical Hawaiian Airlines fashion, the baggage was lost. There were no 40 ml vials available on the island and the volatile organic samples were collected in 300 ml bottles. These were the only appropriate sample containers available in American Samoa at the time. All other sampling protocols were observed with these samples including filling using zero headspace.

Response to Comment No. 5

The date of sampling for the February 1994 samples was between 1000 on 15 February through 0700 on 16 February 1994. For the same reasons explained in the response to comment No. 4 the sampling was delayed by one day but all records were not correctly adjusted. We apologize for this oversight and any confusion this may have caused. We also note the typographical error in the data summary (Table 2) which should indicate 1994 rather than 1993. In addition we note that holding time for semi-volatiles was met if the end time of the composite sample is taken as the sampling time.

MEMORANDUM

Costa to Young and Wiegman

8 February 1995 - Page 3

OPE30702.EL.PM

Response to Comment No. 6

We make every effort to meet holding times as well as possible. However, shipping from American Samoa presents unique logistical problems, and makes coordination with laboratory schedules difficult at times. The hold time for cyanide was exceeded by one day and the laboratory staff assure us that this should make no measurable difference in the validity of the results. We agree with EPA's review comment that the presence of cyanide is highly improbable (and have requested that USEPA consider eliminating this constituent from the testing program). The tests to date certainly indicate no source of cyanide of concern (all tests have been non-detect for both canneries).

We agree that sulphide may be present, but testing for sulphide is not required under 40 CFR 400.15 (the presence sulphide was indicated as positive during the test for cyanide using method 335.2). We feel that the addition of cadmium nitrate as a preservative leads to more problems than it solves (i.e. disposal of cadmium) and there is no way of meeting the 24-hour hold time for a 24-hour composite sample collected in American Samoa. The chance of detecting trace amounts of cyanide, which is not realistically expected, after the DAF treatment of tuna processing wastes is remote and unrealistic. Cyanide is obviously not a constituent of reasonable concern and it has not been detected in the past. The laboratory has suggested that the collection of samples in a narrow mouth glass bottle with no head space would be an alternative approach to improve the testing procedure without adding cadmium nitrate. However, we feel that the evidence and reasonable expectations indicate that this test is not necessary and suggest that USEPA approve our previous request to drop it from the requirements.

MEMORANDUM

Costa to Young and Wiegman

8 February 1995 - Page 4

OPE30702.EL.PM

ATTACHMENT I

USEPA Comments on Priority Pollutant Testing

17 January 1995



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

JAN 17 1995

Steven L. Costa
Project Manager
CH2M HILL
1111 Broadway, P.O. Box 12681
Oakland, CA 94604-2681

Re: Priority Pollutant Monitoring Data Review Comments
American Samoa Tuna Canneries (Oct. 93 & Feb. 94)

Dear Mr. Costa:

Please find enclosed our review comments of the Priority Pollutant Monitoring Data for the VCS Samoa Packing Company (AS0000027) and StarKist Samoa, Inc. (AS0000019). Our review covers effluent priority pollutant monitoring data collected in October 1993 and February 1994 submitted to us in September 1994.

As mentioned in the enclosure the review primarily focused on evaluation of appropriate methods, detection limits and QA/QC procedures. Although there are no significant discrepancies noted in the review there are some discrepancies noted relating to methods referenced, use of other methods with lower detection limits, sample documentation, etc.

Please review our findings and make the appropriate corrective actions which address the concerns noted in the review prior to the next priority pollutant monitoring. Please also provide a written response within thirty (30) days of the date of receipt of the letter regarding the review findings. If additional response time is necessary, please provide a written request for an extension to the 30-day response time.

If you have any questions regarding this matter, please contact Pat Young at (415) 744-1594 or Mike Lee at (415) 744-1592.

Sincerely,

A handwritten signature in dark ink, appearing to read "N. Lovelace", is written over the typed name.

Norman L. Lovelace
Chief, Office of Pacific Island
and Native American Programs

Enclosure

cc: Norman Wei, StarKist Samoa
James Cox, VCS Samoa Packing
Togipa Tausaga, ASEPA
Sheila Wiegman, ASEPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX LABORATORY
1337 S. 46TH STREET
BLDG. 201
RICHMOND, CA 94804-4698

MEMORANDUM

SUBJECT: Review of Priority Pollutant Monitoring Data from
American Samoa Canneries (DCN OPIN007094HJF1)

FROM: Peter Husby *PH*
Laboratory Section, P-3-1

THRU: Brenda Bettencourt, Chief
Laboratory Section, P-3-1

TO: Patricia Young
OPINAP, E-4

As requested, I have reviewed four reports of priority pollutant monitoring data from VCS Samoa Packing Company and Starkist Samoa, Inc. The reports cover effluent monitoring performed on samples collected in October 1993 and February 1994 at both facilities. The request for review specifically requested an evaluation of whether appropriate methods, detection limits and QA/QC procedures were followed. The following comments resulted from my review:

- 1) The method numbers referenced for both the October 1993 sampling and the February 1994 sampling are from Test Methods for Evaluating Solid Waste, SW-846. Within the report for the October event, EPA 200 series methods are correctly referenced. However, the method references for the February sampling are incorrect.
- 2) The organic analysis method references are correct. Reference to both Method 8270 and 625 should be clarified in the Semi-Volatile Organics results for the February samples.
- 3) The detection limits are generally adequate and reasonable for the organic analyses. For the inorganics, the detection levels are below water quality criteria except for copper and silver. Graphite furnace methods 220.2 for copper and 272.2 for silver would achieve detection levels below criteria.
- 4) The volatile organic samples for the February sampling were collected in 300 mL bottles, instead of 40 mL vials. I assume they were collected with zero headspace, but was interested in why the change in bottles was made.
- 5) Some errors in the sample documentation exist. For instance,

the chain-of-custody form and results for the pesticides from February 1994 lists 2/14/94 as the sample date; it should be 2/15-16/94. Despite the change, the hold time was still exceeded. The results for the Starkist samples all note 2/14/94 as the sample date, however, the data summary notes February 15-16, "1993" as the correct date. Since the actual sampling date was 2/15-16/94, the hold time for semi-volatiles, which was reported as missed, was actually met. The minor exceedences of hold times for pesticides should not have significantly affected the data.

6) 14-day hold times for cyanide were missed in the February samples for both facilities. In addition, while I do not anticipate that cyanide would be present in the discharge, it seems reasonable that sulfides may be present. Was lead acetate paper used to test for this, and if so were positive samples treated with cadmium nitrate prior to addition of NaOH? In the presence of sulfides the hold time for cyanide is <24 hours.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

JAN 17 1995

Steven L. Costa
Project Manager
CH2M HILL
1111 Broadway, P.O. Box 12681
Oakland, CA 94604-2681

Re: Priority Pollutant Monitoring Data Review Comments
American Samoa Tuna Canneries (Oct. 93 & Feb. 94)

Dear Mr. Costa:

Please find enclosed our review comments of the Priority Pollutant Monitoring Data for the VCS Samoa Packing Company (AS0000027) and StarKist Samoa, Inc. (AS0000019). Our review covers effluent priority pollutant monitoring data collected in October 1993 and February 1994 submitted to us in September 1994.

As mentioned in the enclosure the review primarily focused on evaluation of appropriate methods, detection limits and QA/QC procedures. Although there are no significant discrepancies noted in the review there are some discrepancies noted relating to methods referenced, use of other methods with lower detection limits, sample documentation, etc.

Please review our findings and make the appropriate corrective actions which address the concerns noted in the review prior to the next priority pollutant monitoring. Please also provide a written response within thirty (30) days of the date of receipt of the letter regarding the review findings. If additional response time is necessary, please provide a written request for an extension to the 30-day response time.

If you have any questions regarding this matter, please contact Pat Young at (415) 744-1594 or Mike Lee at (415) 744-1592.

Sincerely,

A handwritten signature in dark ink, appearing to read "N. Lovelace", written over a horizontal line.

Norman L. Lovelace
Chief, Office of Pacific Island
and Native American Programs

Enclosure

cc: Norman Wei, StarKist Samoa
James Cox, VCS Samoa Packing
Togipa Tausaga, ASEPA
Sheila Wiegman, ASEPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX LABORATORY
1337 S. 46TH STREET
BLDG. 201
RICHMOND, CA 94804-4698

MEMORANDUM

SUBJECT: Review of Priority Pollutant Monitoring Data from
American Samoa Canneries (DCN OPIN007094HJF1)

FROM: Peter Husby *AJH*
Laboratory Section, P-3-1

THRU: Brenda Bettencourt, Chief
Laboratory Section, P-3-1

TO: Patricia Young
OPINAP, E-4

As requested, I have reviewed four reports of priority pollutant monitoring data from VCS Samoa Packing Company and Starkist Samoa, Inc. The reports cover effluent monitoring performed on samples collected in October 1993 and February 1994 at both facilities. The request for review specifically requested an evaluation of whether appropriate methods, detection limits and QA/QC procedures were followed. The following comments resulted from my review:

- 1) The method numbers referenced for both the October 1993 sampling and the February 1994 sampling are from Test Methods for Evaluating Solid Waste, SW-846. Within the report for the October event, EPA 200 series methods are correctly referenced. However, the method references for the February sampling are incorrect.
- 2) The organic analysis method references are correct. Reference to both Method 8270 and 625 should be clarified in the Semi-Volatile Organics results for the February samples.
- 3) The detection limits are generally adequate and reasonable for the organic analyses. For the inorganics, the detection levels are below water quality criteria except for copper and silver. Graphite furnace methods 220.2 for copper and 272.2 for silver would achieve detection levels below criteria.
- 4) The volatile organic samples for the February sampling were collected in 300 mL bottles, instead of 40 mL vials. I assume they were collected with zero headspace, but was interested in why the change in bottles was made.
- 5) Some errors in the sample documentation exist. For instance,

the chain-of-custody form and results. February 1994 lists 2/14/94 as the sample date, 2/16/94. Despite the change, the hold time results for the Starkist samples all met the date, however, the data summary notes the correct date. Since the actual sampling hold time for semi-volatiles, which was actually met. The minor exceedences of hold time should not have significantly affected the results.

6) 14-day hold times for cyanide were used for both facilities. In addition, we anticipate that cyanide would be present in the samples. It is reasonable that sulfides may be present. We used to test for this, and if so were positive for cadmium nitrate prior to addition of NaOH. If sulfides the hold time for cyanide is <24 hours.



UNITED STATES ENVIR

REGI
13:

RICHI

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

of pages 2

| | | | |
|---------------------------------|-----------|----------|-------------------|
| To | Pat Young | From | Peter Husby |
| Dept/Agency | SEA E-4 | Phone # | |
| Fax # | 1504 | Fax # | Hard Copy in mail |
| NSN 7540-01-317-7368 | | 5099-101 | |
| GENERAL SERVICES ADMINISTRATION | | | |

MEMORANDUM

SUBJECT: Review of Priority Pollutant Monitoring Data from American Samoa Canneries (DCN OPIN007094HJF1)

FROM: Peter Husby *PH*
Laboratory Section, P-3-1

THRU: Brenda Bettencourt, Chief
for Laboratory Section, P-3-1

TO: Patricia Young
OPINAP, E-4

As requested, I have reviewed four reports of priority pollutant monitoring data from VCS Samoa Packing Company and Starkist Samoa, Inc. The reports cover effluent monitoring performed on samples collected in October 1993 and February 1994 at both facilities. The request for review specifically requested an evaluation of whether appropriate methods, detection limits and QA/QC procedures were followed. The following comments resulted from my review:

- 1) The method numbers referenced for both the October 1993 sampling and the February 1994 sampling are from Test Methods for Evaluating Solid Waste, SW-846. Within the report for the October event, EPA 200 series methods are correctly referenced. However, the method references for the February sampling are incorrect.
- 2) The organic analysis method references are correct. Reference to both Method 8270 and 625 should be clarified in the Semi-Volatile Organics results for the February samples.
- 3) The detection limits are generally adequate and reasonable for the organic analyses. For the inorganics, the detection levels are below water quality criteria except for copper and silver. Graphite furnace methods 220.2 for copper and 272.2 for silver would achieve detection levels below criteria.
- 4) The volatile organic samples for the February sampling were collected in 300 mL bottles, instead of 40 mL vials. I assume they were collected with zero headspace, but was interested in why the change in bottles was made.
- 5) Some errors in the sample documentation exist. For instance,

the chain-of-custody form and results for the pesticides from February 1994 lists 2/14/94 as the sample date; it should be 2/15-16/94. Despite the change, the hold time was still exceeded. The results for the Starkist samples all note 2/14/94 as the sample date, however, the data summary notes February 15-16, "1993" as the correct date. Since the actual sampling date was 2/15-16/94, the hold time for semi-volatiles, which was reported as missed, was actually met. The minor exceedences of hold times for pesticides should not have significantly affected the data.

6) 14-day hold times for cyanide were missed in the February samples for both facilities. In addition, while I do not anticipate that cyanide would be present in the discharge, it seems reasonable that sulfides may be present. Was lead acetate paper used to test for this, and if so were positive samples treated with cadmium nitrate prior to addition of NaOH? In the presence of sulfides the hold time for cyanide is <24 hours.



Rcd 2/10/95

7 February 1994

PDX30702.MA

Patricia N.N. Young
American Samoa Program Manager
Office of Pacific Islands
and Native American Programs
U.S. Environmental Protection Agency
75 Hawthorne Street (E-4)
San Francisco, California 94105

Sheila Wiegman
American Samoa Environmental
Protection Agency
American Samoa Government
Pago Pago, American Samoa 96799

Dear Pat:
Dear Sheila:

Subject: Joint Cannery Outfall:
Planned March 1995 Field Studies in American Samoa

We have scheduled the next set of field studies required by the Joint Cannery Outfall NPDES permit conditions for the weeks of March 13th and 20th, 1995. We had originally scheduled these studies for February 1995. However, one of the project staff members who participated in the previous coral reef surveys will not be available in February. We believe it is highly desirable to maintain as much continuity as possible for these surveys, and by delaying the study we will have the same staff that conducted the previous surveys available for this survey.

Each of the tasks to be carried out during March 1995 is described below. If you have any concerns or comments on our study plans, please call me as soon as possible. The activities planned include:

- **Coral Reef Survey No. 2.** We included responses to comments on the coral reef survey study plan in the report of the first coral reef survey done in February 1993 under the NPDES permit requirements (CH2M HILL, August 1993). Amy Wagner (USEPA) had one additional comment in her memorandum (Wagner to Young, 14 October 1994) suggest-

ing the use of "random quadrant photos along the transects" for quantitative comparisons. A similar comment was also included in the original list of comments on the study plan from USEPA (Lovelace to Costa, January 22, 1993) and was addressed in the response to comments included in the addendum to the first report referred to above. Our response at that time was:

"Response to Comment 8. The intent of the study is to monitor long term changes in the reef habitat as a whole in various locations in the harbor. In addition, we feel that the establishment of specific one meter square quadrants would be redundant since the records at the start and end of each transect line (at the markers) will serve the same purpose if small scale areas are of interest."

Our opinion remains the same, that the intent of the study is to detect gross changes in coral reef health in a qualitative or semi-quantitative fashion, and we do not anticipate the need for modifying our original study plan. Therefore, **we have not identified or implemented any changes to the original study plan for the second reef survey.**

[Note: There was also a previous coral reef survey conducted by CH2M HILL in January of 1991 in support of a UAA-SSCA. This study is included in comparisons of results with studies done under the NPDES permit conditions.]

- ***Sediment Monitoring Study No. 3.*** We have previously addressed comments on the sediment monitoring study from USEPA, ASEPA, and ASDMWR. The responses to these comments resulted in some changes to the original study plan, and the study plan was revised for the second sampling event. The revised study plan was accepted by USEPA (Lovelace to Costa, 31 August 1993). **We anticipate no additional changes to the study plan (as revised for the second sampling) for the third sampling event.** During the second sediment sampling the canneries agreed to do some additional tests for metals on the samples at the request of ASEPA. We are not planning on including these analyses in the third sediment sampling.
- ***Effluent Bioassay Test No. 5.*** We will collect the composite effluent samples (combining both canneries effluent) as in the past and as described in the standard operating procedures included in the report for the fourth bioassay tests submitted to USEPA and ASEPA (CH2M HILL, 26 January 1995). We will use *Penaeus vannamei* if available

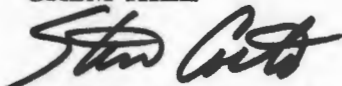
and will substitute *Mysisopsis bahia* if necessary, as previously approved by USEPA. We have incorporated USEPA's previous comments into the testing and reporting protocols and **we intend to collect the samples and run the tests as described in the fourth bioassay report described above.**

- ***Priority Pollutant Analyses No. 5.*** We will collect 24-hour composite samples from each cannery separately as described in the standard operating procedures included in the report for the fourth priority pollutant analyses for each cannery (CH2M HILL, 27 January 1994). We have received USEPA comments (Lovelace to Costa, 17 January 1995) on the previous tests (No. 2 and No. 3). We are responding to those comments and are incorporating them, as appropriate, into the testing and reporting protocols (our response is described in a letter in preparation; Costa to Young, 8 February 1995). In addition, in our cover letter transmitting the results of the fourth testing episode we requested that USEPA allow the canneries to discontinue certain chemical tests based on the previous test results. **We intend to collect the samples and run the test as described in the fourth chemical analysis reports described above, dropping any tests as approved by USEPA, and with modifications in response to USEPA comments of 17 January 1995.**
- ***Receiving Water Quality Monitoring Program.*** Although ASEPA collects the harbor monitoring samples, we have had discussions concerning the collection of supplemental samples to offset and rectify previously missed or incomplete samples and/or sampling dates. This would be done to maintain the required data collection at a level acceptable to EPA. **We will be prepared to collect, ship, and analyze such samples during the other field studies in March, 1995.** We will coordinate the collection and analysis of samples with Mike Lee of USEPA and Sheila Wiegman of ASEPA.

In addition to the field studies the second model verification study will be initiated. The initial model verification study has been completed, shows the previous model predictions are accurate, and a draft report will be forwarded to you by 15 February 1995. If you have any questions or comments please call me at your convenience. I have sent the same information to Sheila Wiegman of ASEPA.

Sincerely,

CH2M HILL



Steven L. Costa, Project Manager

Costa to Young and Wiegman - Page 4 - 7 February 1995

cc: Norman Wei, StarKist Foods, Inc.
James Cox, Van Camp Seafood Company, Inc.
Barry Mills, StarKist Samoa
Michael Macready, VCS Samoa Packing
Mike Lee, USEPA
Amy Wagner, USEPA
David Wilson, CH2M HILL/SEA



Engineers
Planners
Economists
Scientists



2 February 1995

PDX30702.EL.T4

Patricia N.N. Young
American Samoa Program Manager
Office of Pacific Islands and Native American Programs
U.S. Environmental Protection Agency
75 Hawthorne Street (E-4)
San Francisco, California 94105

Dear Pat:

Subject: StarKist Samoa Effluent Chemistry Testing

Enclosed are two copies of a Technical Memorandum describing the results of the fourth priority pollutant analyses done under StarKist Samoa's NPDES permit requirements. I am forwarding the results of the VCS Samoa Packing analyses under separate cover. The results of the concurrent bioassay tests were mailed on 28 January 1995.

Based on the results of the testing done over the last two years we have the following requests to reduce the scope of the testing:

- [1] Cyanide has not been detected in the effluent in any of the four tests (this is also true of the VCS Samoa Packing tests) and there is no reason to expect cyanide in the cannery effluent. Therefore, we **request that EPA allow StarKist Samoa to drop the test for cyanide** as required under condition D.2 of their NPDES permit.
- [2] No pesticides or PCBs (EPA method 608) have been detected in the effluent in any of the four tests (this is also true of the VCS Samoa Packing tests) and there is no reason to expect such constituents in the cannery effluent. Therefore, we **request that EPA allow StarKist Samoa to drop the test for pesticides/PCBs** as required under condition D.2 of their NPDES permit.
- [3] During testing for VOCs (EPA method 624) only acetone and bromoform have been detected. There have been seven samples tested: one

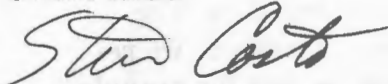
for each of the first three sampling episodes and four samples for the last sampling episode. Acetone was detected only for the first two tests which were done by a different laboratory than the later tests. We suspect laboratory contamination, which is a common occurrence. Bromoform has been detected at levels of 6.4 and 7.8 $\mu\text{g/l}$ in five of the seven samples tested. However, there is no identified quantitative water quality criteria for the protection of aquatic life (CMC or CCC). In addition, there is no reason to normally expect VOC loadings from the tuna canning process wastewater treated in a DAF unit. Therefore, **we request that EPA allow StarKist Samoa to drop the test for VOCs as required under condition D.2 of their NPDES permit.**

- [4] During testing for metals, only arsenic, cadmium, copper, silver, and zinc have been detected (only zinc has been consistently detected). The metals detected in tests of VCS Samoa Packing effluent have shown arsenic, copper, lead selenium, and zinc. The combined suite of metals detected in the effluent from the two canneries is not expected to increase. Therefore, **we request that EPA allow Starkist Samoa to test only for these metals (As, Cd, Cu, Pb, Se, Zn, Ag) during the semiannual tests and drop the tests for the other metals as required under condition D.2 of their NPDES permit.**

We are scheduling the next sampling for late February or early March and would appreciate your comments on the above requests prior to that time. I have sent this information to Sheila Wiegman at ASEPA and Amy Wagner at USEPA. If you have any questions please feel free to call me at your convenience. Thank you for your time and consideration.

Sincerely,

CH2M HILL



Steven L. Costa
Project Manager

cc: Norman Wei, StarKist Seafood Company (with 1 copy of enclosure)
Barry Mills, StarKist Samoa, Inc. (with 1 copy of enclosure)
Amy Wagner, USEPA Region IX (with 1 copy of enclosure)

Effluent Chemical Analyses
 October 1994 Sampling
 StarKist Samoa, Inc.

| Table 3 Summary of Starkist Samoa Effluent Chemistry Sample Results. October 26-27, 1994 | | | | |
|--|-------------------------------------|---------------------------|---------------|---|
| Substance | Previous Sample Results, ug/L (ppb) | | | October 1994 Sample Results, ug/L (ppb) |
| | February 1993 | October 1993 ¹ | February 1994 | |
| Inorganics | | | | |
| Arsenic | 6.0 | ND (14) | ND | 9 |
| Cadmium | ND | ND | 10 | ND |
| Copper | ND | (ND) | 15 | ND |
| Silver | 130 | 33 (39) | ND | ND |
| Zinc | 92 | 130 (180) | 140 | 84 |
| Semivolatile organics | | | | |
| Phenol | 500 | 430 | 45 | 140 |
| 4-methylphenol | 260 | 530 | 360 | 290 |
| Total Phenol | NA | 1300 | 120 | 15 |
| Volatile Organics | | | | |
| Acetone | 24 | 28 | ND | ND |
| Bromoform | 6.4 | 7.7 | 7 | 7.8, 6.4 ² |
| ND = Not Detected NA = Not Analyzed | | | | |
| ¹ Values in parentheses are results of reanalyzed samples (see Technical Memorandum for October 1993, sampling episode, pg 6) | | | | |
| ² Four VOC samples analyzed with two not detected | | | | |

ITAL PROTECTION AGENCY

BORATORY
STREET
201
94804-4698

Bioassay

ent Bioassay Testing Reports for October

2

canneries effluent from October 1993 and
mendations summarize our discussion on

and any acclimation before testing should
e statistical method used to determine the
ort.

nd control test concentrations varied from
st be within ± 2 ppt. If necessary, brine
t the salinity of the test concentrations up

February 1994 test was surprisingly low.
aring the test solutions.

xygen in the reference toxicant tests from
mg/L dissolved oxygen should be aerated

1994 testing, I have recommended that the
nd of testing as a surrogate species. These
ie shrimp will be added to test containers
ia levels, a water change using the original
n concurrence with the method.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX LABORATORY
1337 S. 46TH STREET
BLDG. 201
RICHMOND, CA 94804-4698

OCT 14 1994

SUBJECT: Review of Joint Cannery Outfall Effluent Bioassay Testing Reports for October 1993 and February 1994

FROM: Amy L. Wagner *Amy Wagner*
Laboratory Section

THRU: *Brenda Bettencourt*
Brenda Bettencourt, Chief
Laboratory Section

TO: Pat Young, E-4
OPINAP

I have reviewed the results from bioassay tests of the canneries effluent from October 1993 and February 1994. The following comments and recommendations summarize our discussion on 9/29:

1. The salinity that the test organisms are shipped in and any acclimation before testing should be stated in the subsequent reports. In addition, the statistical method used to determine the point estimate and NOEC should be stated in the report.
2. In the February 1994 test, the salinity of effluent and control test concentrations varied from 23-32 ppt. The salinity of the test concentrations must be within ± 2 ppt. If necessary, brine solutions or deionized water should be used to adjust the salinity of the test concentrations up or down to maintain concentrations within this range.
3. The initial dissolved oxygen in the controls of the February 1994 test was surprisingly low. The dilution seawater should be aerated prior to preparing the test solutions.
4. Due to the unacceptably low levels of dissolved oxygen in the reference toxicant tests from February 1994, all test replicates that fall below 4.0 mg/L dissolved oxygen should be aerated in the future.
5. Since penaeid shrimp will not be available for fall 1994 testing, I have recommended that the mysid shrimp, *Mysidopsis bahia*, be used for this round of testing as a surrogate species. These crustaceans are prone to cannibalism; therefore, brine shrimp will be added to test containers daily. Since this addition may further elevate ammonia levels, a water change using the original effluent sample should be conducted after 48 hours in concurrence with the method.

6. After review of the concurrent chemical analyses, the values for copper and zinc continue to exceed acute and chronic levels for marine invertebrates in the water quality criteria documents. Considering the high toxicity of the effluents, the source of the heavy metals should be investigated in the next inspection of the canneries.

7. I have also viewed the coral reef videos and accompanying analysis of the video transects. If any quantitative analysis is desired, random quadrat photos along the transects would be a more appropriate means of detecting temporal changes in the community.

cc: Debra Denton, W-7-1
Steve Costa, CH₂M Hill
Kurt Kline, Advanced Biological Testing, Inc.

*Cpy to Mike
Amy Wigner*



Engineers
Planners
Economists
Scientists

21 September 1994

OPE30702.MA

BY FAX TO
PAT YOUNG
4 pages
ORIGINAL TO FOLLOW
BY MAIL

Mr. Norman L. Lovelace
Chief, Office of Pacific Island and
Native American Programs (E-4)
U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105

Attention: Patricia N.N. Young
American Samoa Program Manager

Subject: Request by EPA Region IX for Reports Required by NPDES Permits for
StarKist Samoa (AS0000019) and Samoa Packing (AS0000027)

This letter is in response to your letters to StarKist and Van Camp of September 2, 1994. Items 1 through 8 of both letters are identical. Item 9 listed in the letter to Van Camp Seafood Company is being addressed under separate cover directly from Van Camp. As requested, this correspondence provides a written response addressing the completion and submittal of reports and studies and explanations for the delays encountered.

1. **Bioassay Test Reports for August 1993 and February 1994.** The bioassay tests originally scheduled for August 1993 were conducted in October 1993. Both the October 1993 and the February 1994 bioassay reports have now been submitted to USEPA and ASEPA. The release of the reports was delayed to allow simultaneous release of the priority pollutant scan reports (see item 2 below). Interpretation of the bioassay results is enhanced by having the results of the chemical analysis available. As expected, mortality (LC50) was lower under the modified test procedures to allow aeration sufficient to overcome the observed IDOD affects. **LC50 values are about 16-percent for these two bioassays compared to about 5-percent reported for the first test.**

*Oct. 1994 test
Rcd 1/30/95*

The bioassay results imply a dilution requirement of approximately 7:1 to reduce acute toxicity units (TU), to a value of 1 and a dilution of about 20:1 to reduce acute toxicity to a value of 0.3. These dilutions are achieved close to the diffuser port and within seconds of discharge. Based on plume model predictions it is esti-

Costa to Lovelace
Page 2
21 September 1994
OPE30702.MA

mated that a **dilution of 20:1** is achieved within less than 5 meters of the diffuser in under 7 seconds. The estimate is based on worst case conditions.

Although the third (February 1994) bioassay indicated the NOEC at < 1.6-percent, the first two tests indicated NOEC of approximately 3-percent. at 3-percent, the results indicate a dilution requirement of about **33:1** to reduce chronic toxicity units (TU)_c to 1.0. This is based on plume model results under worst case conditions.

How to confirm take into account?
The NPDES permit recognizes a toxicity mixing zone for ammonia with a dilution of 80:1. It is suspected that effluent toxicity is associated with ammonia. Therefore, it appears unnecessary to reopen the existing permits or to impose any additional water quality-based or effluent toxicity limits based on bioassay test results. *26*
➤ The next bioassay test is scheduled for the end of September or the first Week in October of 1994. This provides an opportunity for USEPA and ASEPA to review the previous results prior to the next test.

2. Priority Pollutant Scan Report for February 1994. The priority pollutant analyses done concurrently with the October 1993 and February 1994 bioassays have been submitted to USEPA and ASEPA. Note that the bioassays are conducted on composite effluent samples for both canneries combined and chemical analyses are done on composite samples of each cannery's effluent separately. Additional tests on certain constituents were requested, by CH2M HILL, from the laboratory for the October 1993 test report. Some results were not reported in the initial laboratory reports for the February 1994 tests, and CH2M HILL requested additional information from the laboratories. These laboratory delays resulted in delays in preparing our reports. Additional delays were encountered in the process of internal QA/QC reviews. ✓✓

Ask for source assessment now?
The next scan will be concurrent with the next bioassay tests as described above. Each of the February reports has a summary table for the results of all data to date. Zinc and phenols are the only constituents consistently detected above water quality criteria. Based on the depth and location of the discharge and the high initial dilution, we do not believe there is any immediate concern. We request that any plan for source assessment be made following review of the next scan and be carried out during the next period of intensive field work scheduled for February 1995. *Oct. 1994 - when will we get results*

3. Dye Study Report for October 1993. The second dye study (October 1993) was completed and we intend to deliver the report by 30 September 1994. The report has been delayed because of difficulties in processing location/navigation information. During part of the study we experience problems with the MiniRanger and had to employ alternate navigation techniques. The reduction of this data has taken more time than originally anticipated. In addition, QA/QC reviews of some of the ★

Costa to Lovelace
Page 3
21 September 1994
OPE30702.MA

current meter data delayed the report preparation. The detailed data review and processing was driven in part by the need for use of dye study data in the model verification study (see item 7 below). The data collected and analysis performed fully satisfy the study objectives. The results indicate the diffuser is performing within predicted limits of dilution. A final draft report is now being reviewed.

4. **Sediment Monitoring Report for October 1993.** The second sediment monitoring study report (October 1993) has been submitted to USEPA and ASEPA. This report was delayed because sediment grain size data was initially reported incorrectly by the laboratory, and CH2M HILL requested additional data from the laboratory. Additional metals tests, not required by the permit conditions, were run on the sediment samples at the request of ASEPA. As anticipated, any changes in sediment characteristics will be observed on a long term basis. Any conclusions about temporal changes are premature. The next sediment testing is scheduled for February 1995. ✓
5. **Eutrophication Study Report for April 1994.** All field and laboratory work has been completed for this study. The modeling phase of the study depends on the results of portions of the Model Verification Study (see item 7 below) which in turn depends on the data and results of the dye study (see item 3 above). We anticipate this report will be finished by 30 October 1994. *
6. **Coral Reef Video.** We apologize for this delay, and thought that copies had been forwarded shortly after the report was submitted. Copies have been made from the master and have been mailed from our Seattle office for receipt by USEPA and ASEPA. ✓
7. **Model Verification Report for May 1994.** The completion of the model verification plan requires: [1] the dye study completion, and [2] adequate monitoring data from the receiving water monitoring study. We only have receiving water data from ASEPA through July 1993. We need to know the status of additional data availability. We will complete the verification study with the available data to the extent possible, following the final dye study report. We project that the model verification report will be available by the middle of October 1994. *
8. **Receiving Water Monitoring Reports.** We appear to have some of the missing data in our files for item 7 above. We will formally request additional data, and a listing of available data, from ASEPA by October 15, 1994; any information gathered will be forwarded immediately to USEPA. We understand that sampling was not accomplished for some months in 1992 and 1993.

The canneries recognize their ultimate responsibilities for monitoring data collection. However, the canneries have had an arrangement with ASEPA for the collection of

Ask for metals
also

Costa to Lovelace
Page 4
21 September 1994
OPE30702.MA

the data. Inquiries will be made to ASEPA and AECOS to determine if such an arrangement can be continued in a fashion that will provide the required data in a timely fashion. An alternative approach will be developed if the current arrangement cannot be continued.

At this time our preferred alternative approach will be to: [1] develop a set of standard operating procedures for sample collection and shipping, [2] select an alternate lab for sample analysis if AECOS cannot improve turn-around time, [3] submit the SOP's and lab selection to USEPA and ASEPA for approval, [4] on approval, the canneries' consultant will provide initial training to an on site subcontractor or cannery personnel for sample collection and shipping, and [5] AECOS or the selected alternative laboratory, will submit reports directly to the canneries or their consultant for reporting to USEPA and ASEPA. We request, that if this alternative approach is necessary, the initial field training (item [4] above) be conducted during February 1995 when CH2M HILL staff will be in American Samoa for related field studies. Items [1] through [3] would be completed prior to the filed training. This schedule will maximize the number of training staff and the effectiveness of the training. It will also provide an opportunity for direct interaction with the on-site subcontractor.

We hope you find the above response and explanations satisfactory. If you have any remaining questions please call me at 510-251-2426 (2251) or contact Norman Wei or James Cox directly. Mr. Wei and Mr. Cox have reviewed this letter and request USEPA to consider the contents as the canneries responses to items 1 through 8 in the EPA request letter of September 2, 1994. Thank you for your time and attention to this matter,

Sincerely,

CH2M HILL

Steven L. Costa
Project Manager

cc: Norman Wei/StarKist Samoa
James Cox/Van Camp Seafood Company, Inc.
Barry Mills/StarKist Samoa, Inc
Michael Macready/VCS Samoa Packing Company
Togipa Tausaga/ASEPA
Sheila Wiegman/ASEPA
Mike Lee/USEPA
David Wilson/CH2M HILL/SEA



Engineers
Planners
Economists
Scientists



2 February 1995

PDX30702.EL.T4

Patricia N.N. Young
American Samoa Program Manager
Office of Pacific Islands and Native American Programs
U.S. Environmental Protection Agency
75 Hawthorne Street (E-4)
San Francisco, California 94105

Dear Pat:

Subject: StarKist Samoa Effluent Chemistry Testing

Enclosed are two copies of a Technical Memorandum describing the results of the fourth priority pollutant analyses done under StarKist Samoa's NPDES permit requirements. I am forwarding the results of the VCS Samoa Packing analyses under separate cover. The results of the concurrent bioassay tests were mailed on 28 January 1995.

Based on the results of the testing done over the last two years we have the following requests to reduce the scope of the testing:

- [1] Cyanide has not been detected in the effluent in any of the four tests (this is also true of the VCS Samoa Packing tests) and there is no reason to expect cyanide in the cannery effluent. Therefore, we **request that EPA allow StarKist Samoa to drop the test for cyanide** as required under condition D.2 of their NPDES permit.
- [2] No pesticides or PCBs (EPA method 608) have been detected in the effluent in any of the four tests (this is also true of the VCS Samoa Packing tests) and there is no reason to expect such constituents in the cannery effluent. Therefore, we **request that EPA allow StarKist Samoa to drop the test for pesticides/PCBs** as required under condition D.2 of their NPDES permit.
- [3] During testing for VOCs (EPA method 624) only acetone and bromoform have been detected. There have been seven samples tested: one

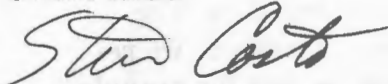
for each of the first three sampling episodes and four samples for the last sampling episode. Acetone was detected only for the first two tests which were done by a different laboratory than the later tests. We suspect laboratory contamination, which is a common occurrence. Bromoform has been detected at levels of 6.4 and 7.8 $\mu\text{g/l}$ in five of the seven samples tested. However, there is no identified quantitative water quality criteria for the protection of aquatic life (CMC or CCC). In addition, there is no reason to normally expect VOC loadings from the tuna canning process wastewater treated in a DAF unit. Therefore, **we request that EPA allow StarKist Samoa to drop the test for VOCs as required under condition D.2 of their NPDES permit.**

- [4] During testing for metals, only arsenic, cadmium, copper, silver, and zinc have been detected (only zinc has been consistently detected). The metals detected in tests of VCS Samoa Packing effluent have shown arsenic, copper, lead selenium, and zinc. The combined suite of metals detected in the effluent from the two canneries is not expected to increase. Therefore, **we request that EPA allow Starkist Samoa to test only for these metals (As, Cd, Cu, Pb, Se, Zn, Ag) during the semiannual tests and drop the tests for the other metals as required under condition D.2 of their NPDES permit.**

We are scheduling the next sampling for late February or early March and would appreciate your comments on the above requests prior to that time. I have sent this information to Sheila Wiegman at ASEPA and Amy Wagner at USEPA. If you have any questions please feel free to call me at your convenience. Thank you for your time and consideration.

Sincerely,

CH2M HILL



Steven L. Costa
Project Manager

cc: Norman Wei, StarKist Seafood Company (with 1 copy of enclosure)
Barry Mills, StarKist Samoa, Inc. (with 1 copy of enclosure)
Amy Wagner, USEPA Region IX (with 1 copy of enclosure)

Effluent Chemical Analyses
 October 1994 Sampling
 StarKist Samoa, Inc.

| Table 3 Summary of Starkist Samoa Effluent Chemistry Sample Results. October 26-27, 1994 | | | | |
|--|-------------------------------------|---------------------------|---------------|---|
| Substance | Previous Sample Results, ug/L (ppb) | | | October 1994 Sample Results, ug/L (ppb) |
| | February 1993 | October 1993 ¹ | February 1994 | |
| Inorganics | | | | |
| Arsenic | 6.0 | ND (14) | ND | 9 |
| Cadmium | ND | ND | 10 | ND |
| Copper | ND | (ND) | 15 | ND |
| Silver | 130 | 33 (39) | ND | ND |
| Zinc | 92 | 130 (180) | 140 | 84 |
| Semivolatile organics | | | | |
| Phenol | 500 | 430 | 45 | 140 |
| 4-methylphenol | 260 | 530 | 360 | 290 |
| Total Phenol | NA | 1300 | 120 | 15 |
| Volatile Organics | | | | |
| Acetone | 24 | 28 | ND | ND |
| Bromoform | 6.4 | 7.7 | 7 | 7.8, 6.4 ² |
| ND = Not Detected NA = Not Analyzed | | | | |
| ¹ Values in parentheses are results of reanalyzed samples (see Technical Memorandum for October 1993, sampling episode, pg 6) | | | | |
| ² Four VOC samples analyzed with two not detected | | | | |

ITAL PROTECTION AGENCY

BORATORY
STREET
201
94804-4698

Bioassay

ent Bioassay Testing Reports for October

2

canneries effluent from October 1993 and
mendations summarize our discussion on

and any acclimation before testing should
e statistical method used to determine the
ort.

nd control test concentrations varied from
st be within ± 2 ppt. If necessary, brine
t the salinity of the test concentrations up

February 1994 test was surprisingly low.
aring the test solutions.

xygen in the reference toxicant tests from
mg/L dissolved oxygen should be aerated

1994 testing, I have recommended that the
nd of testing as a surrogate species. These
ie shrimp will be added to test containers
ia levels, a water change using the original
n concurrence with the method.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX LABORATORY
1337 S. 46TH STREET
BLDG. 201
RICHMOND, CA 94804-4698

OCT 14 1994

SUBJECT: Review of Joint Cannery Outfall Effluent Bioassay Testing Reports for October 1993 and February 1994

FROM: Amy L. Wagner *Amy Wagner*
Laboratory Section

THRU: *Brenda Bettencourt*
Brenda Bettencourt, Chief
Laboratory Section

TO: Pat Young, E-4
OPINAP

I have reviewed the results from bioassay tests of the canneries effluent from October 1993 and February 1994. The following comments and recommendations summarize our discussion on 9/29:

1. The salinity that the test organisms are shipped in and any acclimation before testing should be stated in the subsequent reports. In addition, the statistical method used to determine the point estimate and NOEC should be stated in the report.
2. In the February 1994 test, the salinity of effluent and control test concentrations varied from 23-32 ppt. The salinity of the test concentrations must be within ± 2 ppt. If necessary, brine solutions or deionized water should be used to adjust the salinity of the test concentrations up or down to maintain concentrations within this range.
3. The initial dissolved oxygen in the controls of the February 1994 test was surprisingly low. The dilution seawater should be aerated prior to preparing the test solutions.
4. Due to the unacceptably low levels of dissolved oxygen in the reference toxicant tests from February 1994, all test replicates that fall below 4.0 mg/L dissolved oxygen should be aerated in the future.
5. Since penaeid shrimp will not be available for fall 1994 testing, I have recommended that the mysid shrimp, *Mysidopsis bahia*, be used for this round of testing as a surrogate species. These crustaceans are prone to cannibalism; therefore, brine shrimp will be added to test containers daily. Since this addition may further elevate ammonia levels, a water change using the original effluent sample should be conducted after 48 hours in concurrence with the method.

6. After review of the concurrent chemical analyses, the values for copper and zinc continue to exceed acute and chronic levels for marine invertebrates in the water quality criteria documents. Considering the high toxicity of the effluents, the source of the heavy metals should be investigated in the next inspection of the canneries.

7. I have also viewed the coral reef videos and accompanying analysis of the video transects. If any quantitative analysis is desired, random quadrat photos along the transects would be a more appropriate means of detecting temporal changes in the community.

cc: Debra Denton, W-7-1
Steve Costa, CH₂M Hill
Kurt Kline, Advanced Biological Testing, Inc.

*Cpy to Mike
Amy Wigner*



Engineers
Planners
Economists
Scientists

21 September 1994

OPE30702.MA

BY FAX TO
PAT YOUNG
4 pages
ORIGINAL TO FOLLOW
BY MAIL

Mr. Norman L. Lovelace
Chief, Office of Pacific Island and
Native American Programs (E-4)
U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105

Attention: Patricia N.N. Young
American Samoa Program Manager

Subject: Request by EPA Region IX for Reports Required by NPDES Permits for
StarKist Samoa (AS0000019) and Samoa Packing (AS0000027)

This letter is in response to your letters to StarKist and Van Camp of September 2, 1994. Items 1 through 8 of both letters are identical. Item 9 listed in the letter to Van Camp Seafood Company is being addressed under separate cover directly from Van Camp. As requested, this correspondence provides a written response addressing the completion and submittal of reports and studies and explanations for the delays encountered.

1. **Bioassay Test Reports for August 1993 and February 1994.** The bioassay tests originally scheduled for August 1993 were conducted in October 1993. Both the October 1993 and the February 1994 bioassay reports have now been submitted to USEPA and ASEPA. The release of the reports was delayed to allow simultaneous release of the priority pollutant scan reports (see item 2 below). Interpretation of the bioassay results is enhanced by having the results of the chemical analysis available. As expected, mortality (LC50) was lower under the modified test procedures to allow aeration sufficient to overcome the observed IDOD affects. **LC50 values are about 16-percent for these two bioassays compared to about 5-percent reported for the first test.**

*Oct. 1994 test
Rcd 1/30/95*

The bioassay results imply a dilution requirement of approximately 7:1 to reduce acute toxicity units (TU), to a value of 1 and a dilution of about 20:1 to reduce acute toxicity to a value of 0.3. These dilutions are achieved close to the diffuser port and within seconds of discharge. Based on plume model predictions it is esti-

Costa to Lovelace
Page 2
21 September 1994
OPE30702.MA

mated that a dilution of 20:1 is achieved within less than 5 meters of the diffuser in under 7 seconds. The estimate is based on worst case conditions.

Although the third (February 1994) bioassay indicated the NOEC at < 1.6-percent, the first two tests indicated NOEC of approximately 3-percent. at 3-percent, the results indicate a dilution requirement of about 33:1 to reduce chronic toxicity units (TU)_c to 1.0. This is based on plume model results under worst case conditions.

How to confirm take into account?
The NPDES permit recognizes a toxicity mixing zone for ammonia with a dilution of 80:1. It is suspected that effluent toxicity is associated with ammonia. Therefore, it appears unnecessary to reopen the existing permits or to impose any additional water quality-based or effluent toxicity limits based on bioassay test results. The next bioassay test is scheduled for the end of September or the first Week in October of 1994. This provides an opportunity for USEPA and ASEPA to review the previous results prior to the next test.

2. Priority Pollutant Scan Report for February 1994. The priority pollutant analyses done concurrently with the October 1993 and February 1994 bioassays have been submitted to USEPA and ASEPA. Note that the bioassays are conducted on composite effluent samples for both canneries combined and chemical analyses are done on composite samples of each cannery's effluent separately. Additional tests on certain constituents were requested, by CH2M HILL, from the laboratory for the October 1993 test report. Some results were not reported in the initial laboratory reports for the February 1994 tests, and CH2M HILL requested additional information from the laboratories. These laboratory delays resulted in delays in preparing our reports. Additional delays were encountered in the process of internal QA/QC reviews.

Ask for source assessment now?
The next scan will be concurrent with the next bioassay tests as described above. Each of the February reports has a summary table for the results of all data to date. Zinc and phenols are the only constituents consistently detected above water quality criteria. Based on the depth and location of the discharge and the high initial dilution, we do not believe there is any immediate concern. We request that any plan for source assessment be made following review of the next scan and be carried out during the next period of intensive field work scheduled for February 1995.

3. Dye Study Report for October 1993. The second dye study (October 1993) was completed and we intend to deliver the report by 30 September 1994. The report has been delayed because of difficulties in processing location/navigation information. During part of the study we experience problems with the MiniRanger and had to employ alternate navigation techniques. The reduction of this data has taken more time than originally anticipated. In addition, QA/QC reviews of some of the

Oct. 1994 - when will we get results

Costa to Lovelace
Page 3
21 September 1994
OPE30702.MA

current meter data delayed the report preparation. The detailed data review and processing was driven in part by the need for use of dye study data in the model verification study (see item 7 below). The data collected and analysis performed fully satisfy the study objectives. The results indicate the diffuser is performing within predicted limits of dilution. A final draft report is now being reviewed.

4. **Sediment Monitoring Report for October 1993.** The second sediment monitoring study report (October 1993) has been submitted to USEPA and ASEPA. This report was delayed because sediment grain size data was initially reported incorrectly by the laboratory, and CH2M HILL requested additional data from the laboratory. Additional metals tests, not required by the permit conditions, were run on the sediment samples at the request of ASEPA. As anticipated, any changes in sediment characteristics will be observed on a long term basis. Any conclusions about temporal changes are premature. The next sediment testing is scheduled for February 1995. ✓
5. **Eutrophication Study Report for April 1994.** All field and laboratory work has been completed for this study. The modeling phase of the study depends on the results of portions of the Model Verification Study (see item 7 below) which in turn depends on the data and results of the dye study (see item 3 above). We anticipate this report will be finished by 30 October 1994. *
6. **Coral Reef Video.** We apologize for this delay, and thought that copies had been forwarded shortly after the report was submitted. Copies have been made from the master and have been mailed from our Seattle office for receipt by USEPA and ASEPA. ✓
7. **Model Verification Report for May 1994.** The completion of the model verification plan requires: [1] the dye study completion, and [2] adequate monitoring data from the receiving water monitoring study. We only have receiving water data from ASEPA through July 1993. We need to know the status of additional data availability. We will complete the verification study with the available data to the extent possible, following the final dye study report. We project that the model verification report will be available by the middle of October 1994. *
8. **Receiving Water Monitoring Reports.** We appear to have some of the missing data in our files for item 7 above. We will formally request additional data, and a listing of available data, from ASEPA by October 15, 1994; any information gathered will be forwarded immediately to USEPA. We understand that sampling was not accomplished for some months in 1992 and 1993.

The canneries recognize their ultimate responsibilities for monitoring data collection. However, the canneries have had an arrangement with ASEPA for the collection of

Ask for metals
also

Costa to Lovelace
Page 4
21 September 1994
OPE30702.MA

the data. Inquiries will be made to ASEPA and AECOS to determine if such an arrangement can be continued in a fashion that will provide the required data in a timely fashion. An alternative approach will be developed if the current arrangement cannot be continued.

At this time our preferred alternative approach will be to: [1] develop a set of standard operating procedures for sample collection and shipping, [2] select an alternate lab for sample analysis if AECOS cannot improve turn-around time, [3] submit the SOP's and lab selection to USEPA and ASEPA for approval, [4] on approval, the canneries' consultant will provide initial training to an on site subcontractor or cannery personnel for sample collection and shipping, and [5] AECOS or the selected alternative laboratory, will submit reports directly to the canneries or their consultant for reporting to USEPA and ASEPA. We request, that if this alternative approach is necessary, the initial field training (item [4] above) be conducted during February 1995 when CH2M HILL staff will be in American Samoa for related field studies. Items [1] through [3] would be completed prior to the field training. This schedule will maximize the number of training staff and the effectiveness of the training. It will also provide an opportunity for direct interaction with the on-site subcontractor.

Discuss
w/ASEPA

We hope you find the above response and explanations satisfactory. If you have any remaining questions please call me at 510-251-2426 (2251) or contact Norman Wei or James Cox directly. Mr. Wei and Mr. Cox have reviewed this letter and request USEPA to consider the contents as the canneries responses to items 1 through 8 in the EPA request letter of September 2, 1994. Thank you for your time and attention to this matter,

Sincerely,

CH2M HILL

Steven L. Costa
Project Manager

cc: Norman Wei/StarKist Samoa
James Cox/Van Camp Seafood Company, Inc.
Barry Mills/StarKist Samoa, Inc
Michael Macready/VCS Samoa Packing Company
Togipa Tausaga/ASEPA
Sheila Wiegman/ASEPA
Mike Lee/USEPA
David Wilson/CH2M HILL/SEA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 2, 1994

Norman Wei
Senior Manager
Environmental Engineering
StarKist Foods, Inc.
River Front Place
Newport, KY 41071

Re: Request for Reports Required by NPDES Permit AS0000019

Dear Mr. Wei:

We have reviewed the reports submitted to date, as required by StarKist Samoa, Inc.'s National Pollutant Discharge Elimination System (NPDES) Permit No. AS0000019. We would like to bring to your attention that we have not received the following reports:

1. **Bioassay Test Reports for August 1993 and February 1994.** This test is required to be conducted semi-annually. To date we have only received the report submitted in May 1993 for the test conducted in February 1993. The results of this test indicated high mortality and it was surmised the cause to be the high immediate dissolved oxygen demand of the effluent. Subsequently we agreed to modify the test protocol to accommodate this. As you know, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits, or modified to include appropriate conditions or limits to address demonstrated effluent toxicity. Thus, we are very interested in the subsequent bioassay test results and whether further investigations on the causes and activities to reduce toxicity in the effluent are necessary.
2. **Priority Pollutant Scan Report for February 1994.** A priority pollutant scan is required yearly. To date we have only received a May 1993 report for the scan conducted in February 1993. For StarKist, the scan showed very high concentrations of silver in the effluent.
3. **Dye Study Report for October 1993.** Two dye studies were required to be completed in the first year of the permit and we have only received the results of the first study, conducted in June 1993.
4. **Sediment Monitoring Report for October 1993.** Sediment monitoring is required annually. We are in receipt of only one report which was done for the monitoring conducted in February 1993.

5. **Eutrophication Study Report for April 1994.** This study is required to be conducted only once during the permit, and a six-month extension had been granted for its completion, so that the field data could be collected during the same time as one of the dye studies. The six-month extension date has passed and we have not received the report.
6. **Coral Reef Video.** A final report for the first coral reef study was received in August 1993; however, we never received the video referenced in the report and which is also required by the permit.
7. **Model Verification Report for May 1994.** This report is required to be submitted annually, and the first report is to utilize the first year's receiving water data and results of the dye studies. We approved the plan for the model verification study in November 1993 but have not yet received the first report.
8. **Receiving Water Monitoring Reports.** We have not received these reports for the following months: November 1992; February, April, May through December 1993; and January through the present for 1994. Also, we noted that the log sheets for sample measurements of temperature, turbidity, etc., was only submitted for October 1992. The pH measurement was missing from the log. Also, please note that the laboratory analyses from AECOS do not contain ammonia measurements, which is a required parameter. Although the canneries have an arrangement with the American Samoa Environmental Protection Agency to conduct the receiving water monitoring, it is the responsibility of the permittees to insure that the monitoring is done, and to submit these reports to us on a quarterly basis. We request that the canneries provide us with the missing reports, and in the future, submit the available receiving water data to us quarterly, with the Discharge Monitoring Reports. We also note that the average time from the collection of the sample to the date of the AECOS report is about 3 months, with one report taking 5 months. This is an unacceptable delay in processing time.

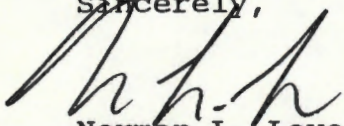
It should be noted that failure of the permittee to perform and/or submit reports and studies as required by this permit constitutes a violation of the permit and is subject to civil penalties under the Clean Water Act. Whenever noncompliance is anticipated, notification should be given to USEPA and ASEPA, as well as an explanation and a schedule for performing the requirement.

Therefore, please provide a written response which clearly addresses completion and submittal of the reports and/or studies

referenced above, within 30 days of the date of receipt of this letter. Your written response should include explanations for noncompliance with the respective permit conditions as identified in this letter. In addition, this response should include a schedule for completing these reports and studies.

If you have any questions regarding this letter, please contact Pat Young, American Samoa Program Manager, at (415) 744-1594.

Sincerely,



Norman L. Lovelace
Chief

Office of Pacific Island and
Native American Programs (E-4)

cc: Barry Mills, StarKist Samoa, Inc.
Steve Costa, CH2MHill
Togipa Tausaga, ASEPA
Sheila Wiegman, ASEPA
Mike Lee, E-4



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105

November 24, 1993

Sheila Wiegman
Environmental Coordinator
American Samoa Environmental
Protection Agency
Office of the Governor
Pago Pago, American Samoa 96799

Dear Sheila:

I recently received
93 Consolidated Grant
quality data for the
harbor from August 1992
of the data it seems
quality for some parameters
chlorophyll a.

However, some of the data
receiving them so we
water quality improvement
know. The information

- No sampling
ber 1992 (report)
month samples were
pling being done monthly? If monthly
me know, and reason for not sampling.

- The lab log attached to the first AECOS report (dated Nov. 11, 1992) includes data for temperature, turbidity, dissolved oxygen, total suspended solids, and Secchi depth. I can't read the heading for the last column, for which all measurements were 3,000 ml. There is no data for pH and salinity.

- For the other AECOS reports received, no lab logs with the above data were included.

I realize the problems ASG has had with AECOS and hope the financial situation has improved so that the analyses are received in a more timely manner. If there's anything I can do on this end to help, please let me know.

Missing

9/92 ; 11 or 12/92 ; 2/93

Submit quarterly to us?

Do cc canisters?



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105

November 24, 1993

Sheila Wiegman
Environmental Coordinator
American Samoa Environmental
Protection Agency
Office of the Governor
Pago Pago, American Samoa 96799

Dear Sheila:

I recently received the first semi-annual report for the FY 93 Consolidated Grant and have been looking over the water quality data for the cannery permit sampling stations in the harbor from August 1992 to March 1993. Based on a quick review of the data it seems there has been improvement in the water quality for some parameters: total nitrogen, total phosphorus and chlorophyll a.

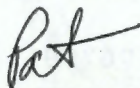
However, some data sheets are missing and I would appreciate receiving them so we can make a more thorough analysis of the water quality improvements. If not available, please let me know. The information I'm missing is as follows:

- No sampling results for September 1992, November or December 1992 (report dated May 13, 1993 does not indicate what month samples were collected), and February 1993. Is sampling being done monthly? If months were missed, please let me know, and reason for not sampling.
- The lab log attached to the first AECOS report (dated Nov. 11, 1992) includes data for temperature, turbidity, dissolved oxygen, total suspended solids, and Secchi depth. I can't read the heading for the last column, for which all measurements were 3,000 ml. There is no data for pH and salinity.
- For the other AECOS reports received, no lab logs with the above data were included.

I realize the problems ASG has had with AECOS and hope the financial situation has improved so that the analyses are received in a more timely manner. If there's anything I can do on this end to help, please let me know.

Also as we discussed previously, serious consideration should be given to making the canneries responsible for collecting and submitting the water quality monitoring data rather than ASEPA. I'm sure the lab staff has enough to keep them busy without doing the cannery monitoring for them. Activities the lab could become involved in would be monitoring of the nonpoint source projects and management measures; verification of cannery monitoring and analyses; assistance to Dr. Fujioka's project to find an appropriate indicator organism for human contamination of surface water and prevalence of enterococci in American Samoa soil; etc. (I'm sure you have lots of projects in mind.) Please consult with Tony and let's talk about this further.

Sincerely,



Pat Young
American Samoa Program Manager

Canneries' Receiving WQ Monitoring

Sampling Date

Report Date

Comments

8/6/92 ^{4th Qtr} ✓

11/12/92

• TN + TP + Ca

around outfall exceed

- some TN + Ca ex. in mid +

inner Harbor

Light penetr. depth poor

• ~~water temp~~ - only 3 over 65°

No pH, salinity

10/6/92 ^{1st Qtr} ✓

1/28/93

what happened?

2 pts. IH exceed TN + TP

★ At outfall (#14) TP = 21.1 ug/l

① No DO or turbidity, pH, salinity temp.

? ^{1st Qtr} Received 12/24/92 | 5/13/92

Majority of Ca over 1, very high ^{Ca} TN + TP at IH station

No ① data

^{2nd Qtr} ✓

1/22/93 ^{Red} 2/16/93 6/28/93

Several Ca exceedances, around 20M, Transition Zone + IH

No ① data

3/9/93 ^{2nd Qtr}

3/18/93 / 6/9/93

Ca exceedance at IH

No ① data

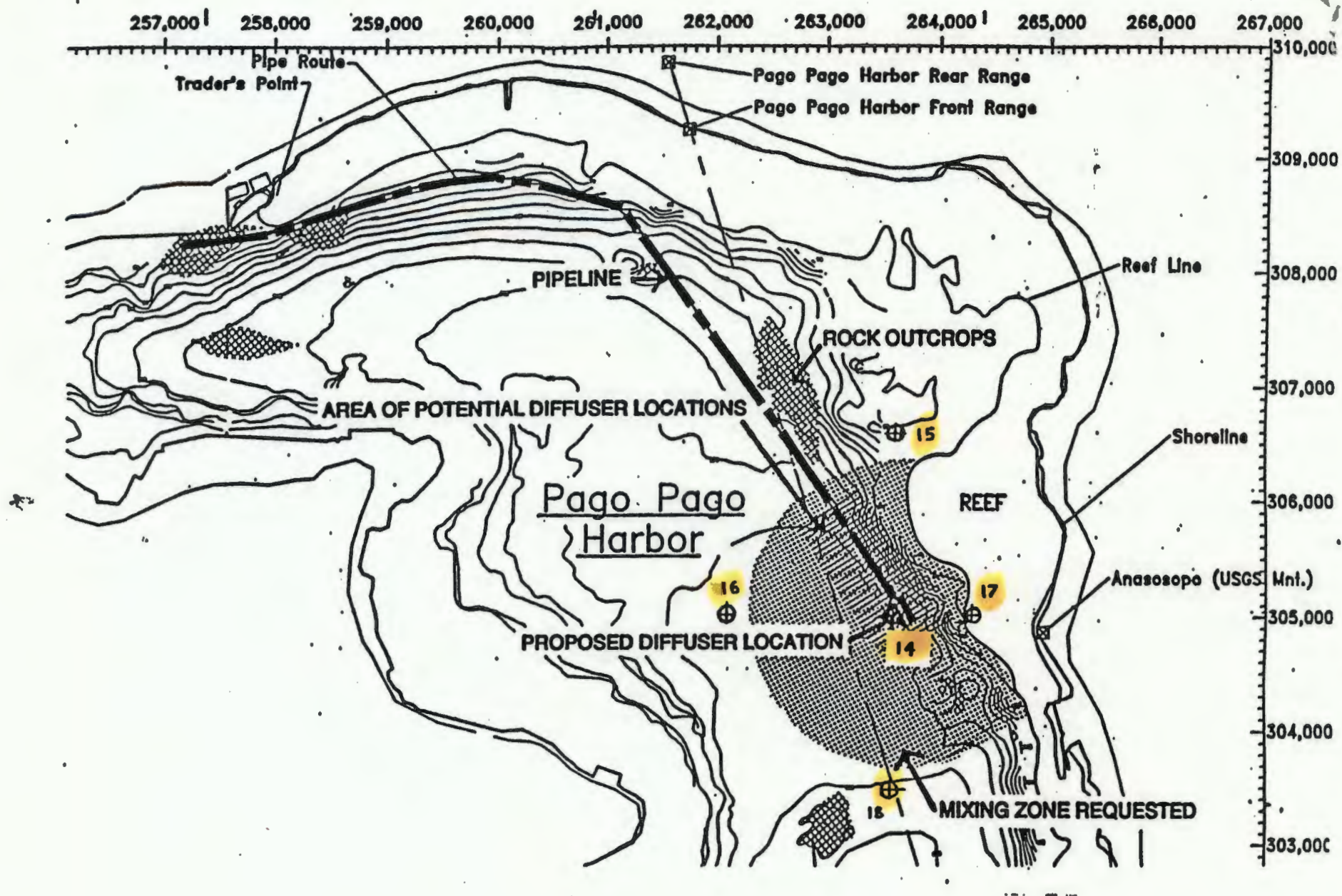
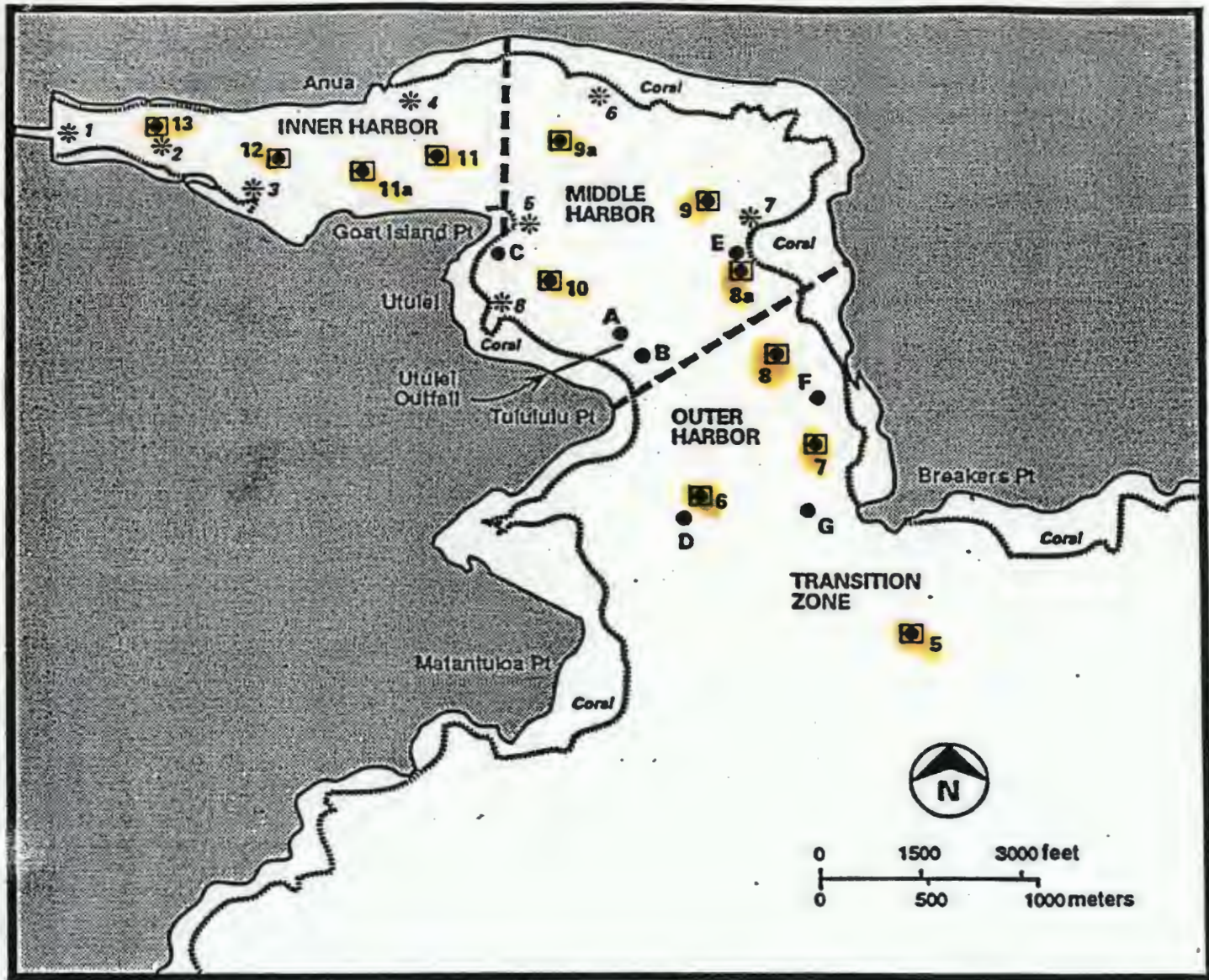


FIGURE 1. NEW MONITORING STATIONS
IN PAGO PAGO HARBOR (14-18)



LEGEND

- ASG Sampling Station
- Utulei WWTP Station
- * CH2M HILL Field Measurement Station (1/19/91)

FIGURE 2. LOCATION OF WATER QUALITY STATIONS IN PAGO PAGO HARBOR

Station 14 = Diffuser
 15 = 20M N
 16 ————— W
 17 ————— E
 18 ————— S

| Action | File | Note and Return |
|--------------|----------------------|------------------|
| Approval | For Clearance | Per Conversation |
| As Requested | For Correction | Prepare Reply |
| Circulate | For Your Information | See Me |
| Comment | Investigate | Signature |
| Coordination | Justify | |

REMARKS

T Nitrate/nogen - 200 microgm/l

TP - 30

Chloroph. a 1.0

DO not less than 70% sat. or
> 5.0 milg./liter

pH 6.5-8.6 + when .2 ppt units
occur naturally

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)

Room No.—Bldg.

Turbidity .75 NTU

Phone No. 

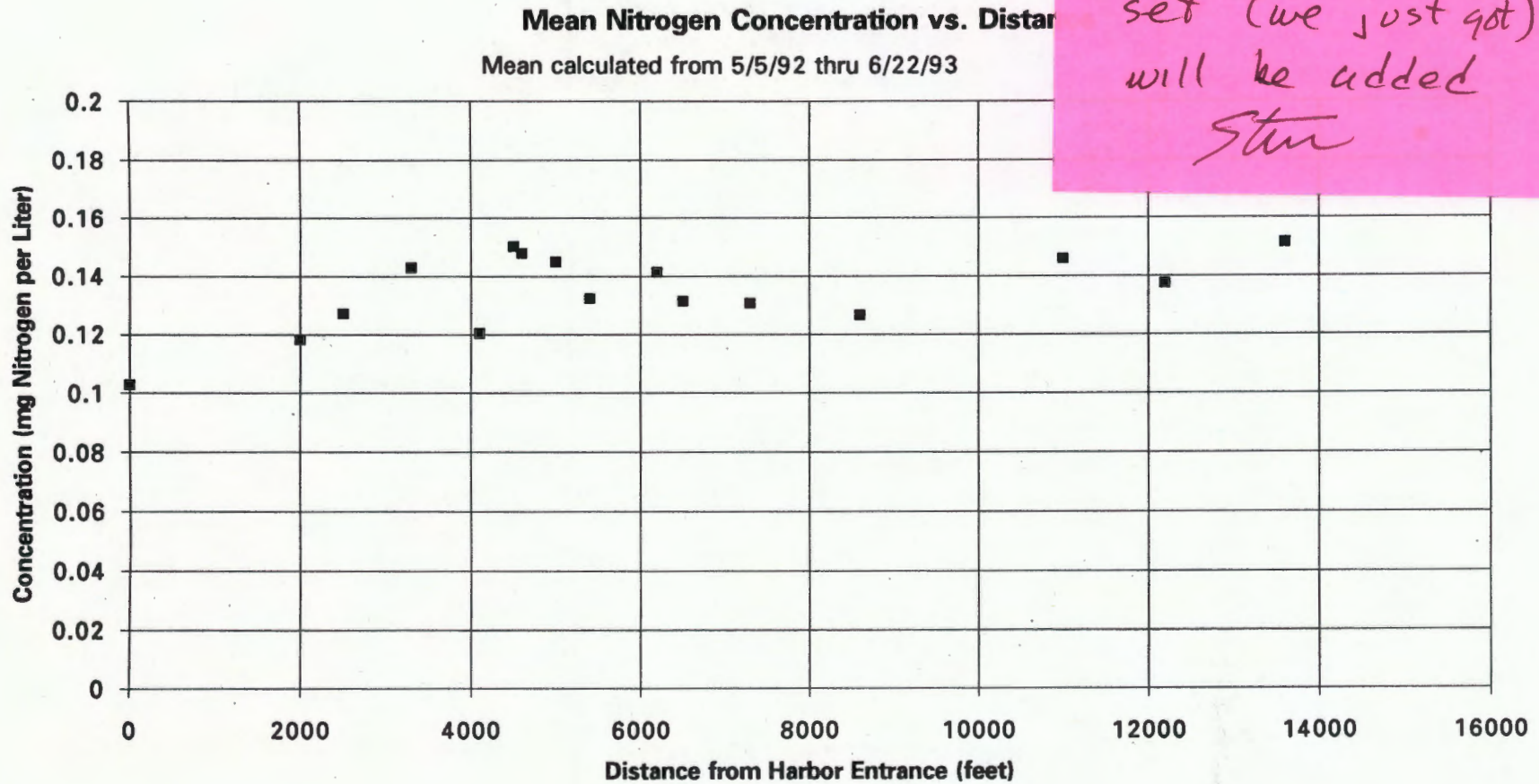
5041-102

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

* U.S. GPO: 1990 — 262-080

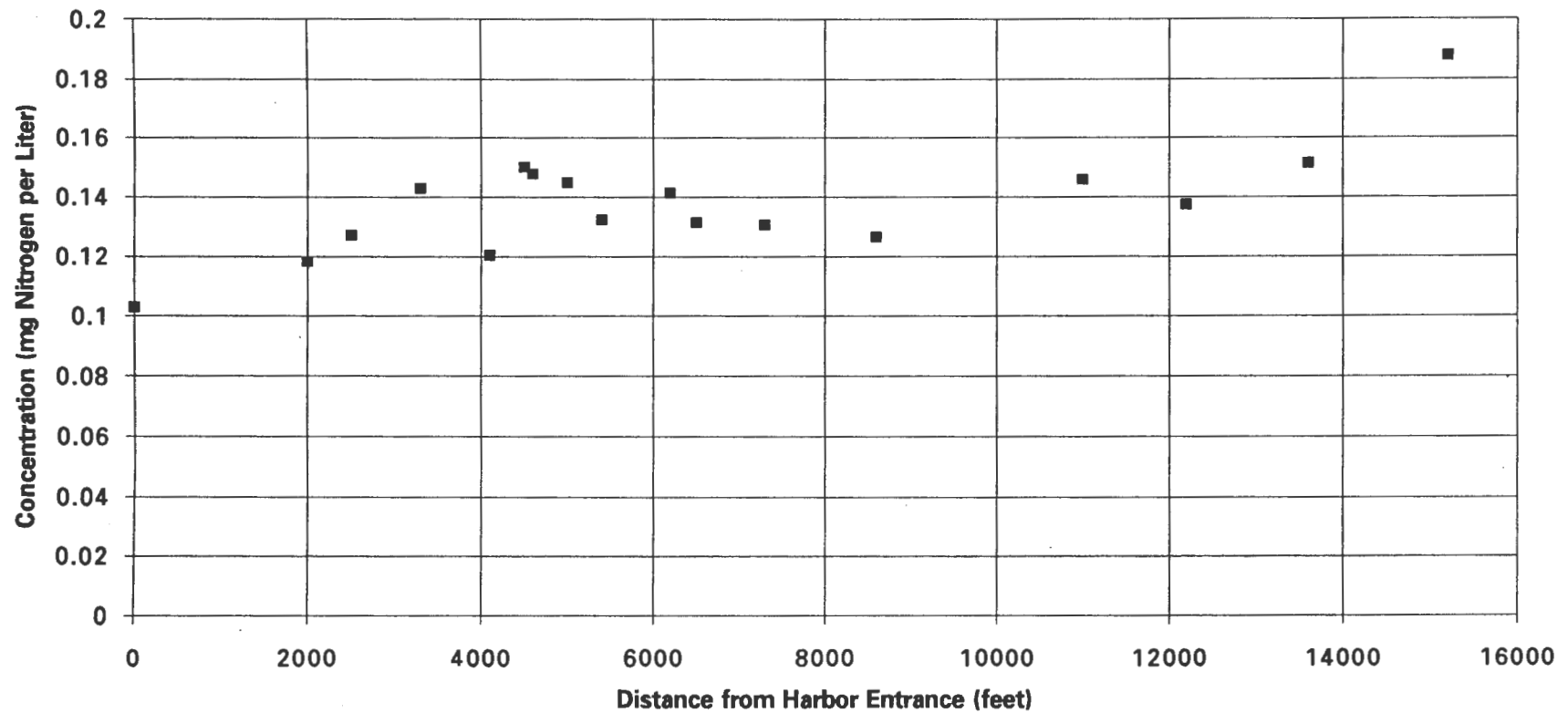
PAR - Red 4/13/95

Per your request
copies of previous
data. The next
set (we just got)
will be added
Stu

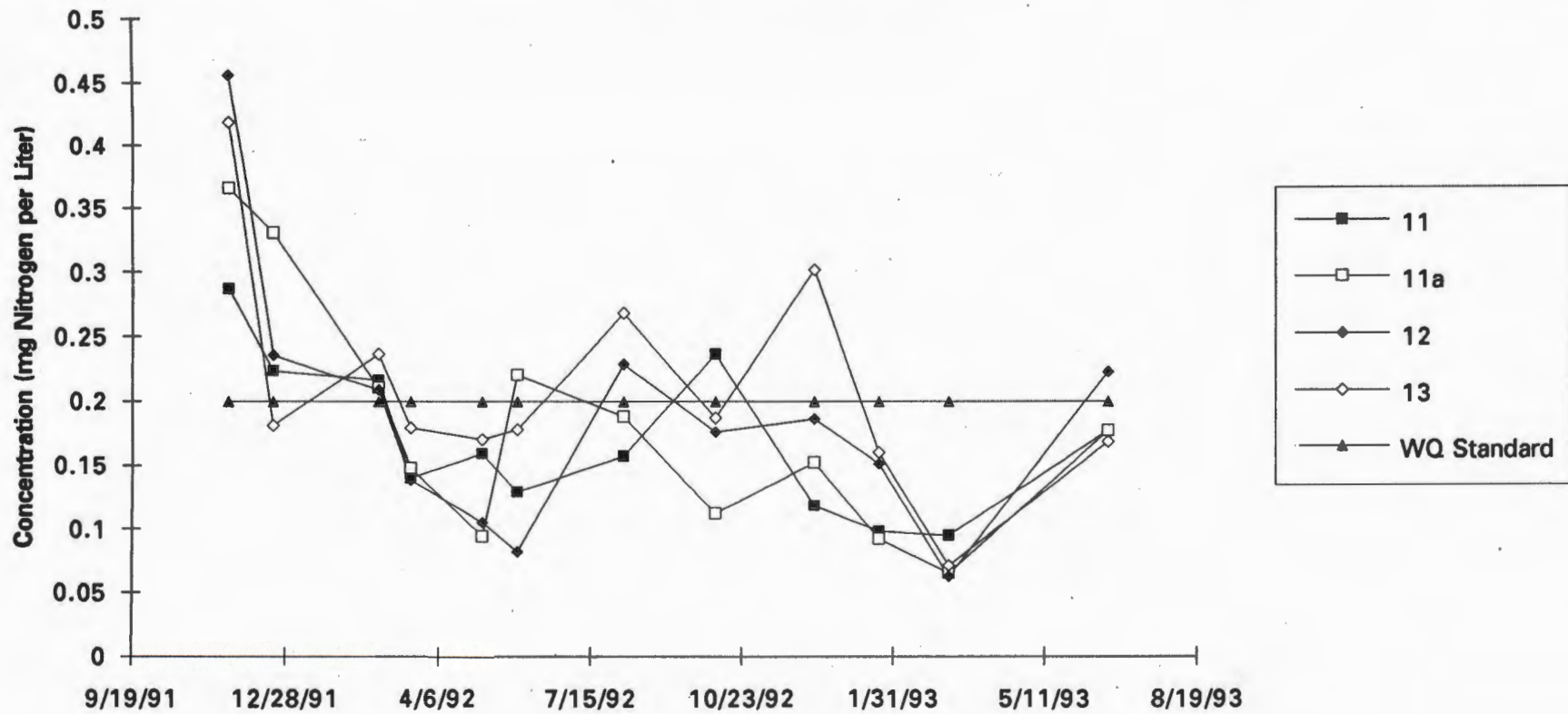


Mean Nitrogen Concentration vs. Distance

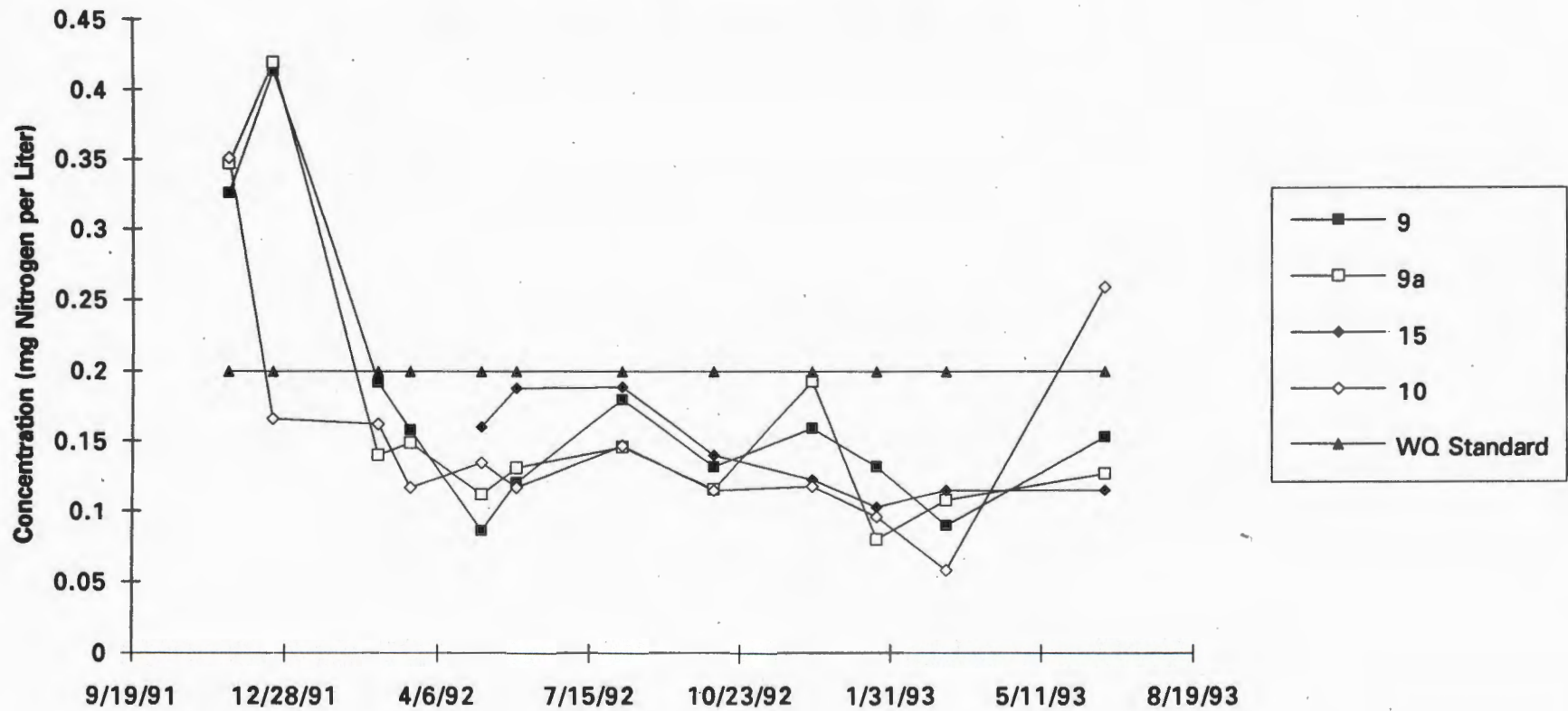
Mean calculated from 5/5/92 thru 6/22/93



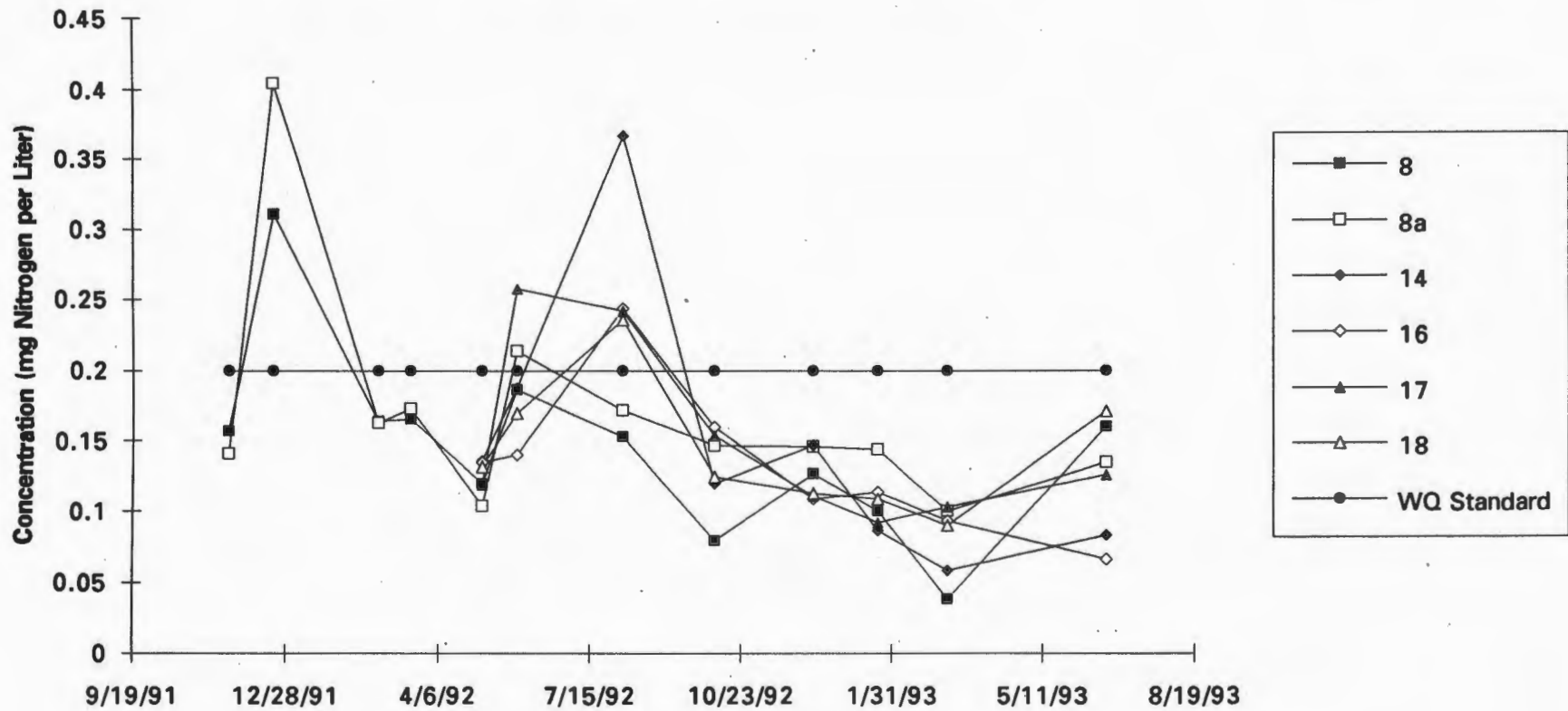
Inner Harbor Nitrogen Concentrations vs Time



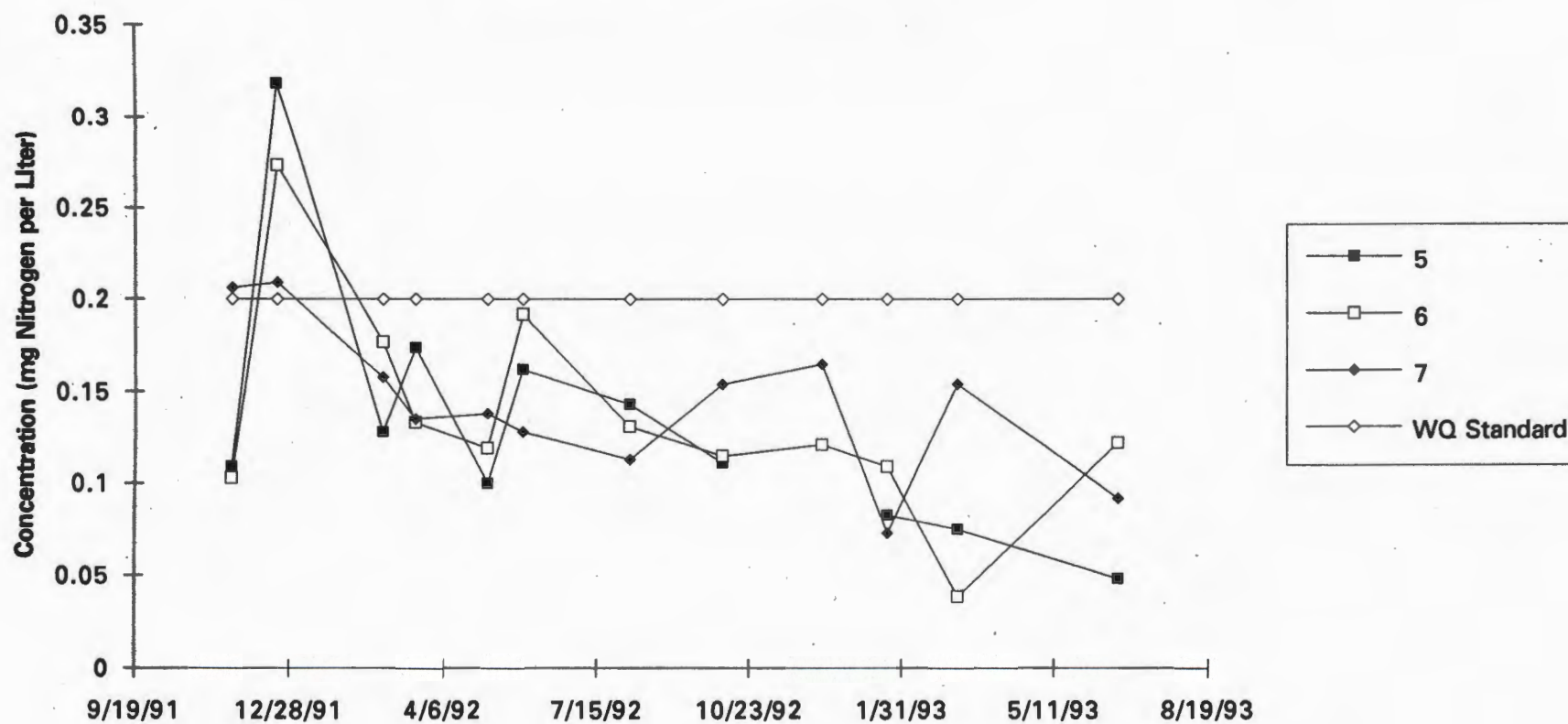
Middle Harbor Nitrogen Concentration vs. Time



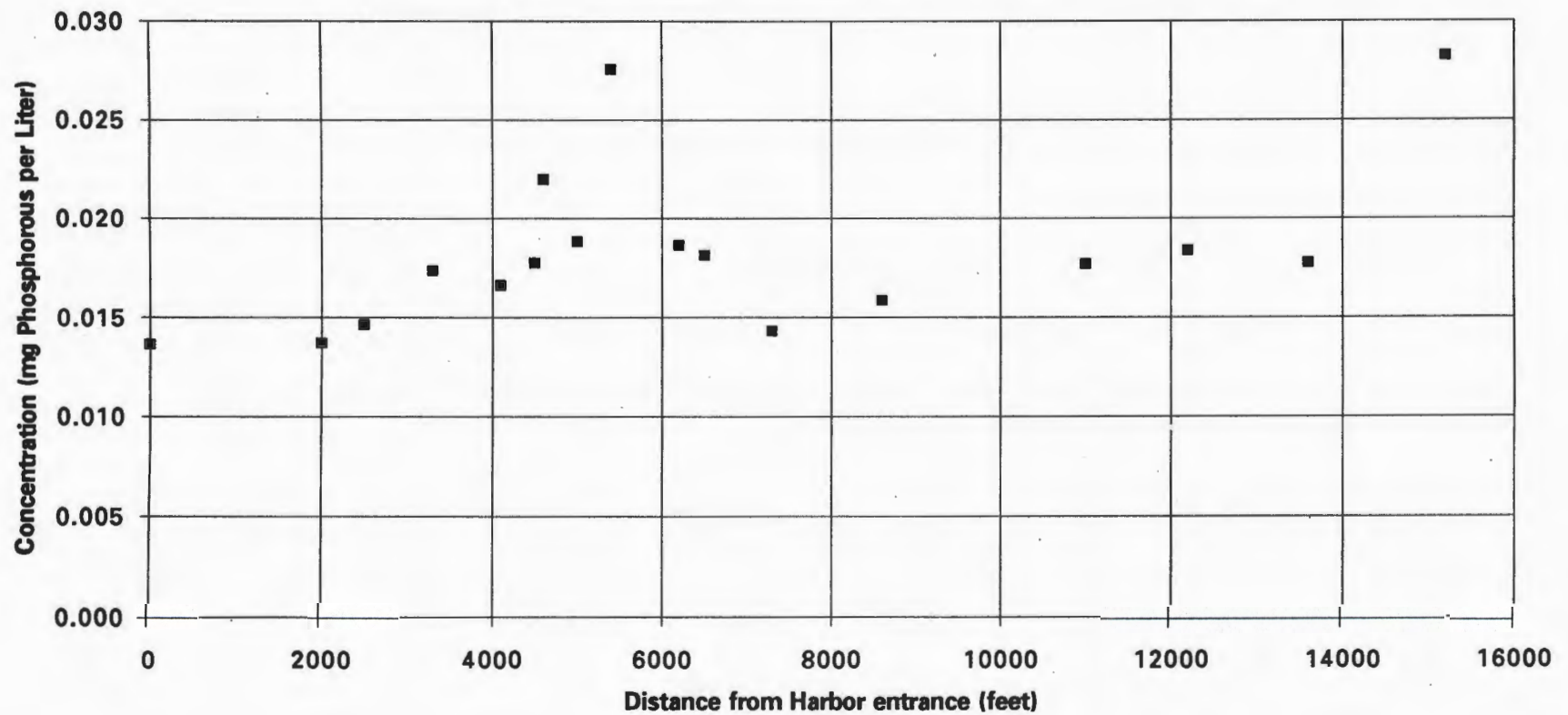
Mixing Zone Area Nitrogen Concentration vs. Time



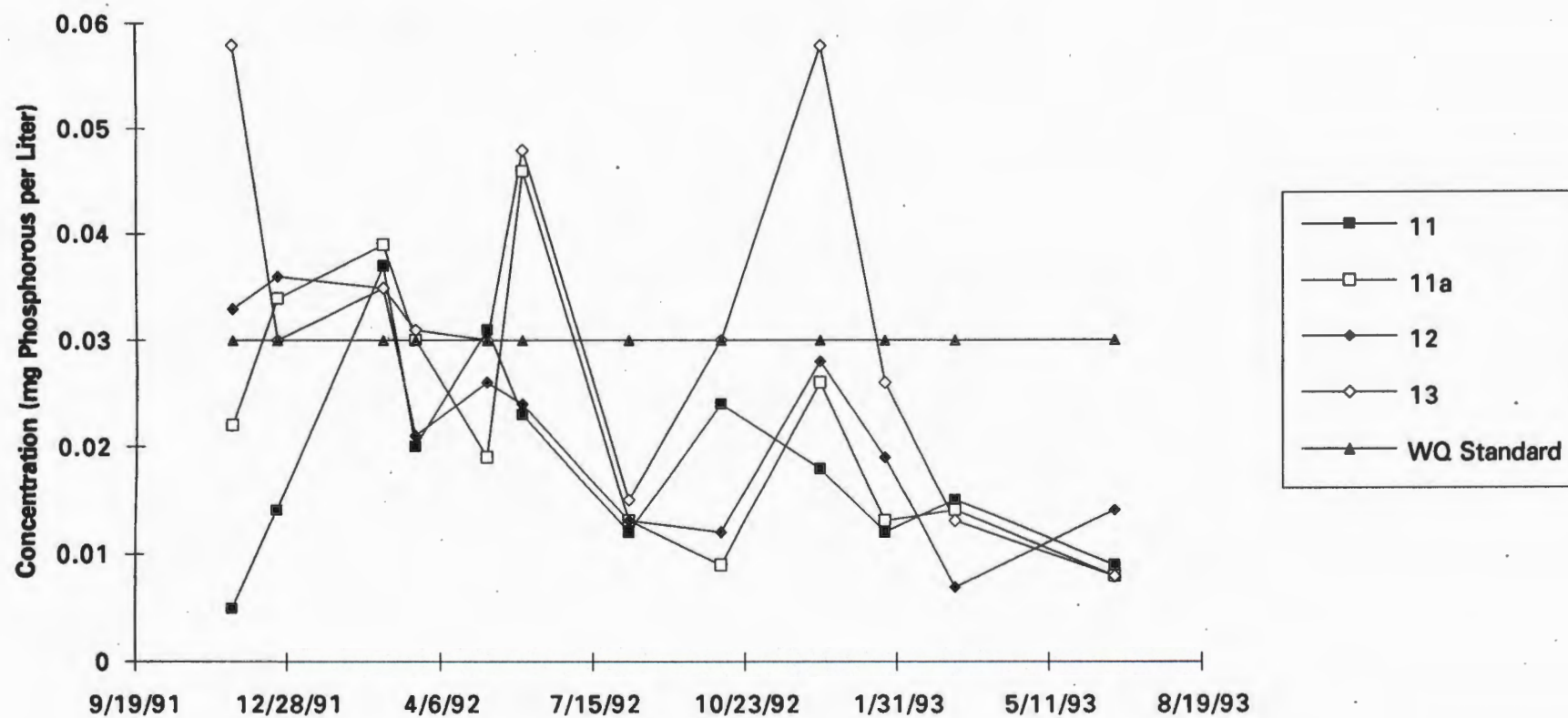
Outer Harbor Nitrogen Concentration vs. Time



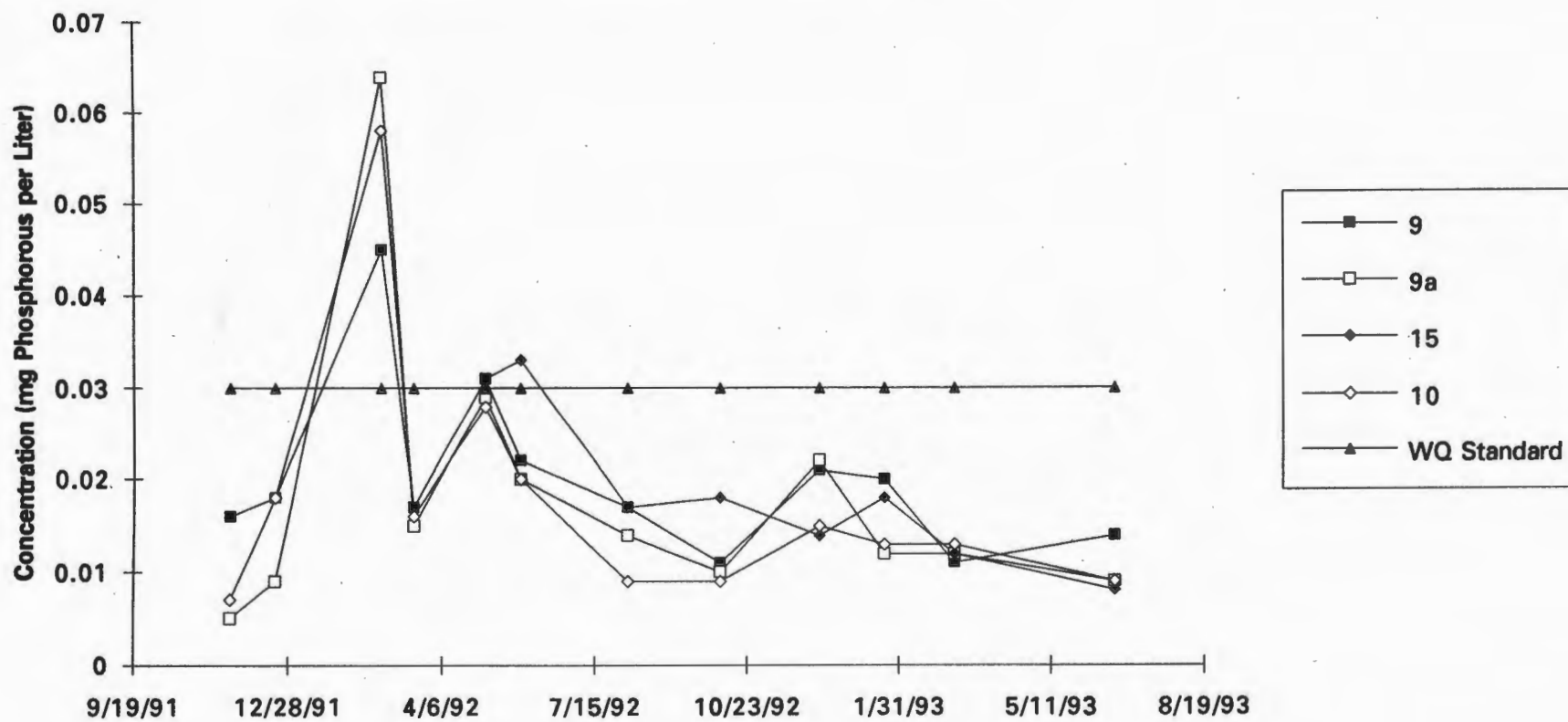
Mean Phosphorous Concentration vs. Distance



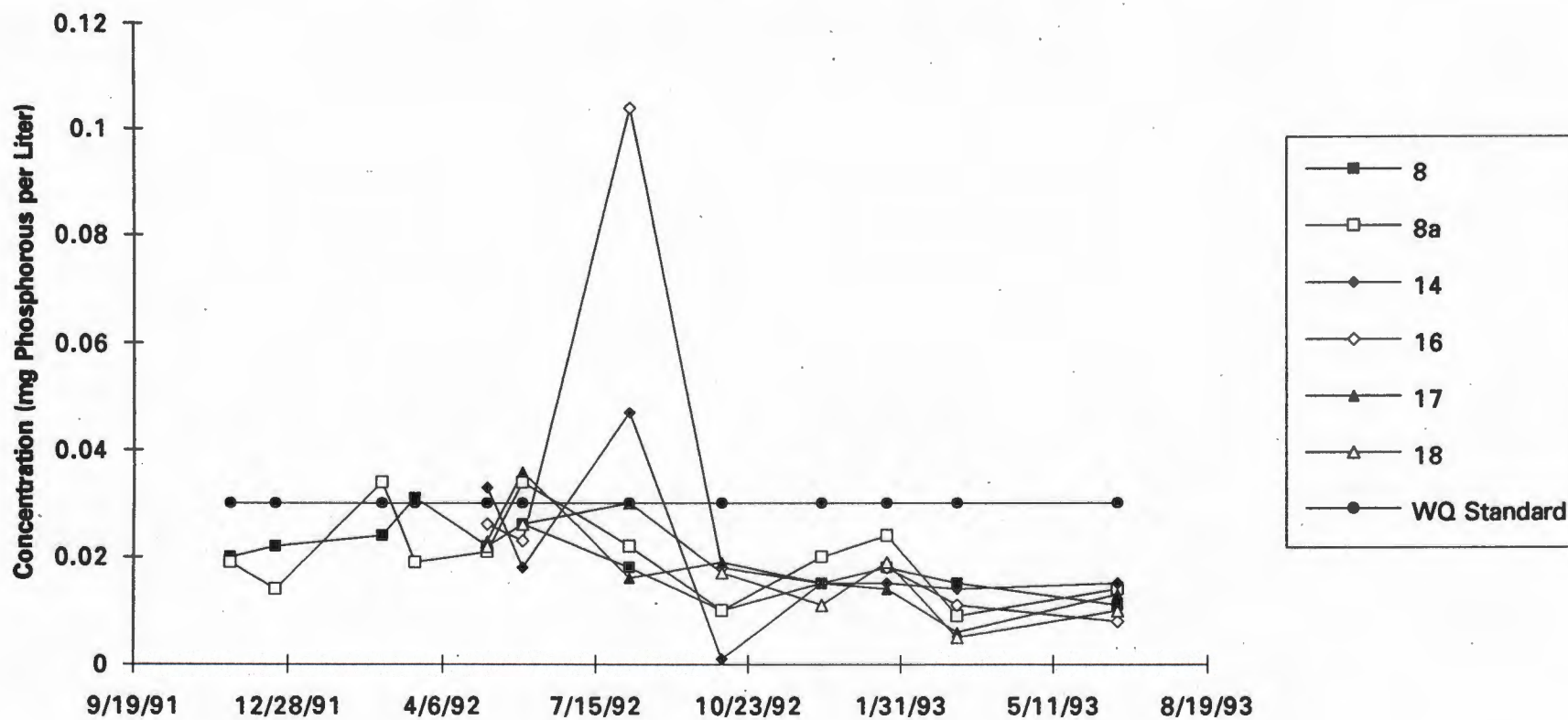
Inner Harbor Phosphorous Concentration vs. Time



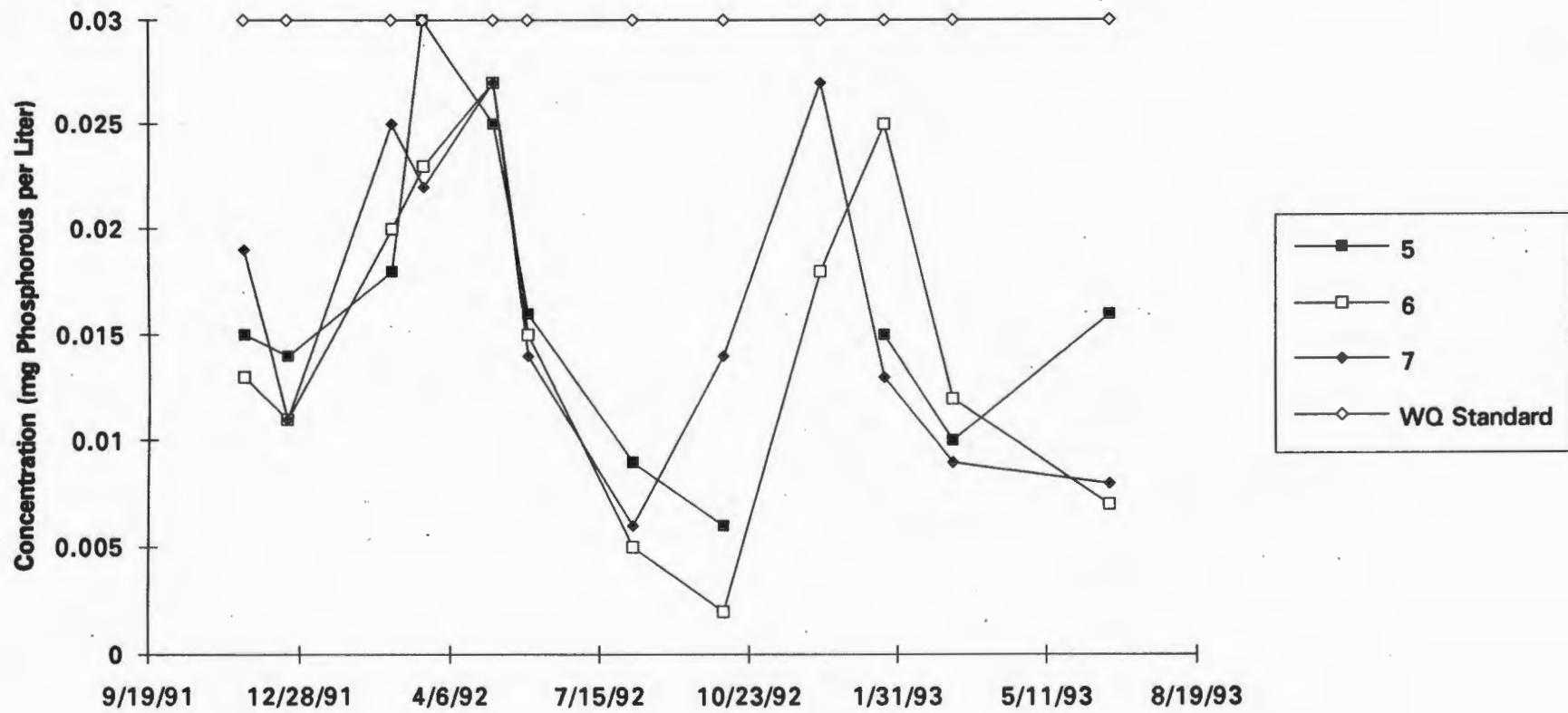
Middle Harbor Phosphorous Concentration vs. Time



Mixing Zone Area Phosphorous Concentration vs. Time



Outer Harbor Phosphorous Concentration vs. Time



StarKist Samoa, Inc.



September 12/94

Mr. Norman Lovelace
OPINAP (E-4)
USEPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

Mr. Togipa Tausaga
ASEPA, Office of the Governor
American Samoa Government
Pago Pago, American Samoa
96799

Gentlemen,

On September 10/94, at approximately 12:45 PM, Starkist Waste Water Treatment personnel, during their routine inspection of the plant, noticed a series of small air bubbles coming from a flange located near the Samoa Packing dock of the joint marine pipeline.

The waste water plant was immediately shut down at 12:55 PM. Omega Diving was called at 1:00 PM. ASEPA was contacted at approximately 1:45 PM. Local coastguard couldn't be reached at this time but was contacted to-day Monday, September 12/94 at 07:30 AM.

Omega Diving successfully completed repairs to the flange at approximately 8:00 PM and the plant was started up at 8:50 PM same day. The bubbles were of a very minor nature and all necessary steps were taken in an expeditious manner by our staff to correct the situation. We estimate, worst case scenario, total release to the ocean of < 200 gallons of treated effluent.

If you have any questions, please feel free to contact Cliff Johnson of our engineering staff at 684-644-2860.

Respectfully,

Barry Mills
General Manager
Starkist Samoa Inc.,
P O Box 368
Pago Pago, American Samoa
96799

CC: Ms. Sheila Wiegman/Mr. Virgil Shouse/Mr. Cliff Johnson

Copy to Mike
A Subsidiary of Star-Kist Foods, Inc.

P.O. Box 368
Pago Pago, Tutuila Island
American Samoa 96799

Telephone: 684 644-4231
Facsimile: 684 644-2440



StarKist Samoa, Inc.

An Affiliate of StarKist Seafood Company



August 23/94

Mr. Norman Lovelace
OPINAP (E-4)
U. S. EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

Mr. Togipa Tausaga
ASEPA
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

Gentleman:

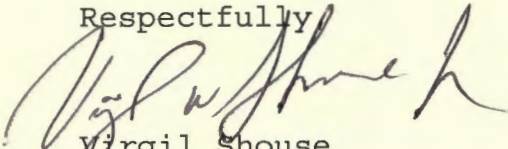
On August 20/94, at approximately 10:30 AM, Starkist engineering staff, during their normal daily inspection, noticed a series of small air bubbles coming from a flange located near the Samoa Packing dock of the joint marine pipeline. Omega Diving was called immediately, at 10:35 AM the same day. The bubbles were caused from a loose bolt on the flange in question which was tightened and the bubbles stopped at approximately 3:30 PM on the same day.

ASEPA and the Coast Guard were also notified by telephone approximately 10:45 AM on August 20/94

The bubbles were of a very minor nature and all necessary steps were taken in an expeditious manner by our engineering staff to correct the situation. We estimate total release to the ocean of < 200 gallons.

If you have any questions, please feel free to contact Cliff Johnson of my staff at 684-644-2860.

Respectfully


Virgil Shouse
Operations Manager
Starkist Samoa Inc.

cc: Ms. Sheila Wiegman
Mr. Barry Mills
Mr. Norman Wei
Mr. Cliff Johnson

Copy to Mike Lee
P.O. Box 368
Pago Pago, Tūfūila Islands
American Samoa 96799
Telephone: 684-644-4231
Facsimile: 684-644-2440





Engineers
Planners
Economists
Scientists



21 September 1994

OPE30702.MA

Mr. Norman L. Lovelace
Chief, Office of Pacific Island and
Native American Programs (E-4)
U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105

Attention: Patricia N.N. Young
American Samoa Program Manager

Subject: Request by EPA Region IX for Reports Required by NPDES Permits for
StarKist Samoa (AS0000019) and Samoa Packing (AS0000027)

This letter is in response to your letters to StarKist and Van Camp of September 2, 1994. Items 1 through 8 of both letters are identical. Item 9 listed in the letter to Van Camp Seafood Company is being addressed under separate cover directly from Van Camp. As requested, this correspondence provides a written response addressing the completion and submittal of reports and studies and explanations for the delays encountered.

1. **Bioassay Test Reports for August 1993 and February 1994.** The bioassay tests originally scheduled for August 1993 were conducted in October 1993. Both the October 1993 and the February 1994 bioassay reports have now been submitted to USEPA and ASEPA. The release of the reports was delayed to allow simultaneous release of the priority pollutant scan reports (see item 2 below). Interpretation of the bioassay results is enhanced by having the results of the chemical analysis available. As expected, mortality (LC50) was lower under the modified test procedures to allow aeration sufficient to overcome the observed IDOD affects. LC50 values are about 16-percent for these two bioassays compared to about 5-percent reported for the first test.

The bioassay results imply a dilution requirement of approximately 7:1 to reduce acute toxicity units (TU), to a value of 1 and a dilution of about 20:1 to reduce acute toxicity to a value of 0.3. These dilutions are achieved close to the diffuser port and within seconds of discharge. Based on plume model predictions it is esti-

mated that a dilution of 20:1 is achieved within less than 5 meters of the diffuser in under 7 seconds. The estimate is based on worst case conditions.

Although the third (February 1994) bioassay indicated the NOEC at < 1.6-percent, the first two tests indicated NOEC of approximately 3-percent. at 3-percent, the results indicate a dilution requirement of about 33:1 to reduce chronic toxicity units (TU)_c to 1.0. This is based on plume model results under worst case conditions.

The NPDES permit recognizes a toxicity mixing zone for ammonia with a dilution of 80:1. It is suspected that effluent toxicity is associated with ammonia. Therefore, it appears unnecessary to reopen the existing permits or to impose any additional water quality-based or effluent toxicity limits based on bioassay test results. The next bioassay test is scheduled for the end of September or the first Week in October of 1994. This provides an opportunity for USEPA and ASEPA to review the previous results prior to the next test.

2. **Priority Pollutant Scan Report for February 1994.** The priority pollutant analyses done concurrently with the October 1993 and February 1994 bioassays have been submitted to USEPA and ASEPA. Note that the bioassays are conducted on composite effluent samples for both canneries combined and chemical analyses are done on composite samples of each cannery's effluent separately. Additional tests on certain constituents were requested, by CH2M HILL, from the laboratory for the October 1993 test report. Some results were not reported in the initial laboratory reports for the February 1994 tests, and CH2M HILL requested additional information from the laboratories. These laboratory delays resulted in delays in preparing our reports. Additional delays were encountered in the process of internal QA/QC reviews.

The next scan will be concurrent with the next bioassay tests as described above. Each of the February reports has a summary table for the results of all data to date. Zinc and phenols are the only constituents consistently detected above water quality criteria. Based on the depth and location of the discharge and the high initial dilution, we do not believe there is any immediate concern. We request that any plan for source assessment be made following review of the next scan and be carried out during the next period of intensive field work scheduled for February 1995.

3. **Dye Study Report for October 1993.** The second dye study (October 1993) was completed and we intend to deliver the report by 30 September 1994. The report has been delayed because of difficulties in processing location/navigation information. During part of the study we experience problems with the MiniRanger and had to employ alternate navigation techniques. The reduction of this data has taken more time than originally anticipated. In addition, QA/QC reviews of some of the

current meter data delayed the report preparation. The detailed data review and processing was driven in part by the need for use of dye study data in the model verification study (see item 7 below). The data collected and analysis performed fully satisfy the study objectives. The results indicate the diffuser is performing within predicted limits of dilution. A final draft report is now being reviewed.

4. **Sediment Monitoring Report for October 1993.** The second sediment monitoring study report (October 1993) has been submitted to USEPA and ASEPA. This report was delayed because sediment grain size data was initially reported incorrectly by the laboratory, and CH2M HILL requested additional data from the laboratory. Additional metals tests, not required by the permit conditions, were run on the sediment samples at the request of ASEPA. As anticipated, any changes in sediment characteristics will be observed on a long term basis. Any conclusions about temporal changes are premature. The next sediment testing is scheduled for February 1995.
5. **Eutrophication Study Report for April 1994.** All field and laboratory work has been completed for this study. The modeling phase of the study depends on the results of portions of the Model Verification Study (see item 7 below) which in turn depends on the data and results of the dye study (see item 3 above). We anticipate this report will be finished by 30 October 1994.
6. **Coral Reef Video.** We apologize for this delay, and thought that copies had been forwarded shortly after the report was submitted. Copies have been made from the master and have been mailed from our Seattle office for receipt by USEPA and ASEPA.
7. **Model Verification Report for May 1994.** The completion of the model verification plan requires: [1] the dye study completion, and [2] adequate monitoring data from the receiving water monitoring study. We only have receiving water data from ASEPA through July 1993. We need to know the status of additional data availability. We will complete the verification study with the available data to the extent possible, following the final dye study report. We project that the model verification report will be available by the middle of October 1994.
8. **Receiving Water Monitoring Reports.** We appear to have some of the missing data in our files for item 7 above. We will formally request additional data, and a listing of available data, from ASEPA by October 15, 1994; any information gathered will be forwarded immediately to USEPA. We understand that sampling was not accomplished for some months in 1992 and 1993.

The canneries recognize their ultimate responsibilities for monitoring data collection. However, the canneries have had an arrangement with ASEPA for the collection of

Costa to Lovelace
Page 4
21 September 1994
OPE30702.MA

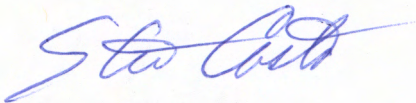
the data. Inquiries will be made to ASEPA and AECOS to determine if such an arrangement can be continued in a fashion that will provide the required data in a timely fashion. An alternative approach will be developed if the current arrangement cannot be continued.

At this time our preferred alternative approach will be to: [1] develop a set of standard operating procedures for sample collection and shipping, [2] select an alternate lab for sample analysis if AECOS cannot improve turn-around time, [3] submit the SOP's and lab selection to USEPA and ASEPA for approval, [4] on approval, the canneries' consultant will provide initial training to an on site subcontractor or cannery personnel for sample collection and shipping, and [5] AECOS or the selected alternative laboratory, will submit reports directly to the canneries or their consultant for reporting to USEPA and ASEPA. We request, that if this alternative approach is necessary, the initial field training (item [4] above) be conducted during February 1995 when CH2M HILL staff will be in American Samoa for related field studies. Items [1] through [3] would be completed prior to the field training. This schedule will maximize the number of training staff and the effectiveness of the training. It will also provide an opportunity for direct interaction with the on-site subcontractor.

We hope you find the above response and explanations satisfactory. If you have any remaining questions please call me at 510-251-2426 (2251) or contact Norman Wei or James Cox directly. Mr. Wei and Mr. Cox have reviewed this letter and request USEPA to consider the contents as the canneries responses to items 1 through 8 in the EPA request letter of September 2, 1994. Thank you for your time and attention to this matter,

Sincerely,

CH2M HILL



Steven L. Costa
Project Manager

cc: Norman Wei/StarKist Samoa
James Cox/Van Camp Seafood Company, Inc.
Barry Mills/StarKist Samoa, Inc
Michael Macready/VCS Samoa Packing Company
Togipa Tausaga/ASEPA
Sheila Wiegman/ASEPA
✓ Mike Lee/USEPA
David Wilson/CH2M HILL/SEA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

October 21, 1993

Norman Wei
Senior Manager
Environmental Engineering
Star-Kist Foods, Inc.
Riverfront Place
Newport, KY 41071

Dear Norman:

As you requested, enclosed is the available information we have on Southwest Marine's ship repair facility in American Samoa. I hope this will assist you in the environmental assessment you will be conducting as part of your company's consideration of leasing the facility from the American Samoa Government. The information enclosed is Southwest Marine's NPDES application, dated October 4, 1988, and a Best Management Practices Guidance Document for the Shipbuilding and Repair Industry, obtained from Southwest Marine's parent company in San Diego.

Please feel free to contact Mike Lee, Enforcement/Compliance Officer, at (415) 744-1592, if you need further information about the condition of the facility.

Sincerely,

A handwritten signature in dark ink, appearing to read "Pat", is written over the typed name "Pat Young".

Pat Young
American Samoa Program Manager
Office of Pacific Island and
Native American Programs (E-4)

Enclosures (2)

cc: Sheila Wiegman, ASEPA
Mike Lee, E-4
Robyn Stuber, W-5-1

ROUTING AND TRANSMITTAL SLIP

Date

6/11

TO: (Name, office symbol, room number,
building, Agency/Post)

Initials

Date

1. PAT YOUNG E-4

2.

3.

4.

5.

| Action | File | Note and Return |
|--------------|----------------------|------------------|
| Approval | For Clearance | Per Conversation |
| As Requested | For Correction | Prepare Reply |
| Circulate | For Your Information | See Me |
| Comment | Investigate | Signature |
| Coordination | Justify | |

REMARKS

DO NOT use this form as a RECORD of approvals, concurrences, disposals,
clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)

Room No.—Bldg.

ROBYN STUBER 10-5-1

Phone No.

4-1921

5041-102

OPTIONAL FORM 41 (Rev. 7-76)

Prescribed by GSA
FPMR (41 CFR) 101-11.206

* U.S. GPO: 1990 — 262-080

WB



OFFICE OF THE GOVERNOR

American Samoa Government
Pago Pago, American Samoa 96799

| |
|------------------|
| 24 MAY 1993 |
| RA/DRA |
| Action <i>WJ</i> |
| CC: |
| File: |

JUN 14 1993 *SM*

A.P. Lutali, Governor
Tauese P. Sunia, Lt. Governor

Telephone: (684) 633-4116
Fax: (684) 633-2269

Serial: 681

May 17, 1993

Mr. Daniel McGovern
Regional Administrator
U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, California 94105

Dear Mr. McGovern:

It has come to my attention that Star Kist Samoa ceased production on May 12, 1993 as the sludge boat cannot travel to the ocean dump site due to dangerous weather conditions. Star Kist informs me that production could be resumed if treated high strength waste were allowed to be discharged through the outfall pipe in Pago Pago Harbor. I realize this is an exception to the National Pollutant Discharge Elimination System (NPDES) permit for the facility but I am concerned for lost productivity in the American Samoa economy and lost wages for the employees.

For this reason, I am requesting that your agency allow Star Kist Samoa to discharge the treated waste to Pago Pago Harbor for three days beginning on Monday, May 17, 1993 if the weather continues to prohibit the sludge boat from travelling to the ocean dump site. I believe the environmental effects are short term when compared to potential losses in the economy.

Please feel free to contact me or Aleni Ripine, my Chief of Staff at (684) 633-4116 for any further information. I appreciate your favorable consideration of this matter.

Sincerely,

A. P. Lutali
A. P. LUTALI
Governor



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 2, 1993

Steven L. Costa
Project Manager
CH2M Hill
1111 Broadway
P.O. Box 12681
Oakland, CA 94604-2681

Re: Approval of the Joint Cannery Outfall Dye Study Plan for the
Tradewind Season

Dear Steve:

We reviewed the July 1993 Dye Study Report, conducted during the non-tradewind season, as well as the proposed changes to the study plan for the upcoming tradewind season dye study. The proposed revisions, as outlined in your letter of August 16, 1993, are hereby approved. These revisions include: 1) better tracking of the plume near the mixing zone boundary through injecting dye at an initial higher concentration; 2) rescheduling the study from late August/early September to late September/early October; and, 3) other minor modifications.

Should you have any questions, please contact Pat Young at (415) 744-1594.

Sincerely,

A handwritten signature in dark ink, appearing to read "N. Lovelace", written over a horizontal line.

Norman L. Lovelace
Chief, Office of Pacific Island and
Native American Programs

cc: Norman Wei, Star-Kist Seafood Company
James Cox, Van Camp Seafood Company
Tony Tausaga, American Samoa EPA
Sheila Wiegman, American Samoa EPA

StarKist Samoa, Inc.

An Affiliate of StarKist Seafood Company



DEC 09 1992 *SW*

P.O. Box 368
Pago Pago, TuTuila Islands
American Samoa 96799
Telephone: 684-644-4231
Facsimile: 684-644-~~2446~~ 1658

November 19th, 1992

United States Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA. 94105-3901

Attention: Pat Young

Dear Pat,

Please find attached for your records.
One (1) copy each of Manifest #00067130 & #00067131 for Hazardous
Waste materials shipped off island for disposal.

Yours sincerely,

Robert D. Higgins
SUPERINTENDENT - UTILITIES

RDH/11

cc: William R. Adams
Norman Wei
Maurice Callaghan



Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039, expires 09-30-91

| | | | | | | | | | | | | | |
|--|--|--|--|---|--|--|--|---|--|-----------------|--|-----------------------------------|--|
| UNIFORM HAZARDOUS WASTE MANIFEST | | 1. Generator's US EPA ID No. A S D 9 8 3 3 6 6 0 3 0 9 2 5 2 6 | | Manifest Document No. 2 5 2 6 | | 2. Page 1 of 1 | | Information in the shaded areas is not required by Federal law. | | | | | |
| 3. Generator's Name and Mailing Address STARKIST SAMOA, INC., P.O. BOX 368 PAGO PAGO, AMERICAN SAMOA, 96799 | | | | | | A. State Manifest Document Number 00067131 | | | | | | | |
| 4. Generator's Phone (684) 644-4249 | | | | | | B. State Generator's ID | | | | | | | |
| 5. Transporter 1 Company Name POLYNESIA LINE | | | | 6. US EPA ID Number C A D 9 8 3 6 4 6 5 2 2 | | C. State Transporter's ID | | | | | | | |
| 7. Transporter 2 Company Name SECURITY ENVIRONMENTAL SYSTEMS | | | | 8. US EPA ID Number C A D 9 8 0 8 8 7 4 7 5 | | D. Transporter's Phone 310-983-8855 | | | | | | | |
| 9. Designated Facility Name and Site Address TREATMENT ONE 5738 CHESWOOD ST. HOUSTON, TX 77087 | | | | | | E. State Transporter's ID | | | | | | | |
| | | | | | | F. Transporter's Phone 714-892-6645 | | | | | | | |
| | | | | | | G. State Facility's ID 50267 | | | | | | | |
| | | | | | | H. Facility's Phone 713-645-8710 | | | | | | | |
| 11A. HM | | 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) | | | | 12. Containers No. Type | | 13. Total Quantity | | 14. Unit Wt/Vol | | 15. Waste No. | |
| X | | a. WASTE FLAMMABLE LIQUID, N.O.S. (LAB PACK) FLAMMABLE LIQUID, UN1993 (D001,U220) | | | | 0 0 1 D M | | 0 0 0 0 9 | | G | | 978400 | |
| X | | b. WASTE OXIDIZER, N.O.S. (LAB PACK) OXIDIZER, UN1479, (D001) | | | | 0 0 1 D M | | 0 0 0 0 5 5 | | P | | 978400 | |
| X | | c. WASTE ORM-B, N.O.S. (LAB PACK) ORM-B, NA1760 | | | | 0 0 1 D M | | 0 0 0 0 1 5 | | P | | 978400 | |
| X | | d. WASTE SODIUM AZIDE, POISON B, UN1687 (P105) | | | | 0 0 1 D M | | 0 0 0 0 0 1 | | | | 978400 | |
| J. Additional Descriptions for Materials Listed Above | | | | | | K. Handling Codes for Wastes Listed Above | | | | | | | |
| 11A) LAB PACK DRUM #1 1 X 55 | | | | | | 11D) LAB PACK DRUM #4 1 X 55 | | | | | | | |
| 11B) LAB PACK DRUM #2 1 X 30 55 | | | | | | 11C) LAB PACK DRUM #3 1 X 30 55 | | | | | | | |
| 15. Special Handling Instructions and Additional Information USE GLOVES AND GOGGLES APPROVAL #43-5025 REMANIFESTED FROM #00067098 24 HOUR EMERGENCY CONTACT: CHEMTREC 800-424-9300 EMERGENCY RESPONSE GUIDE #'S 11A)#27 11B)#35 11C)#60 11D)#56 | | | | | | | | | | | | | |
| 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. | | | | | | | | | | | | | |
| Printed/Typed Name Holly McCarty | | | | | | Signature <i>Holly McCarty</i> | | | | | | Month Day Year 09 20 92 | |
| 17. Transporter 1 Acknowledgement of Receipt of Materials | | | | | | Signature <i>Robert R. Hardman</i> | | | | | | Date 09 20 92 | |
| Printed/Typed Name Robert R. Hardman | | | | | | Signature <i>Robert R. Hardman</i> | | | | | | Month Day Year 09 20 92 | |
| 18. Transporter 2 Acknowledgement of Receipt of Materials | | | | | | Signature <i>Robert R. Hardman</i> | | | | | | Date 09 20 92 | |
| Printed/Typed Name Robert R. Hardman | | | | | | Signature <i>Robert R. Hardman</i> | | | | | | Month Day Year 09 20 92 | |
| 19. Discrepancy Indication Space to Verification of Contents & Volume. | | | | | | | | | | | | | |
| 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. | | | | | | | | | | | | | |
| Printed/Typed Name GWEN FOSTER | | | | | | Signature <i>Gwen Foster</i> | | | | | | Date 11 01 29 92 | |



Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved. OMB No. 2050-0039, expires 09-30-91

| UNIFORM HAZARDOUS WASTE MANIFEST | | 1. Generator's US EPA ID No. A S D 9 8 3 3 6 6 0 3 0 9 2 6 0 4 | Manifest Document No. 2 6 0 4 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law. | |
|--|--|---|----------------------------------|--|---|-----------|
| 3. Generator's Name and Mailing Address STARKIST SAMOA, INC., P.O. BOX 368 PAGO PAGO, AMERICAN SAMOA, 96799 | | | | A. State Manifest Document Number 00067130 | | |
| 4. Generator's Phone (684) 644-4249 | | | | B. State Generator's ID | | |
| 5. Transporter 1 Company Name POLYNESIA LINE | | 6. US EPA ID Number C A D 9 8 3 6 4 6 5 2 2 | | C. State Transporter's ID | | |
| 7. Transporter 2 Company Name SECURITY ENVIRONMENTAL SYSTEMS | | 8. US EPA ID Number C A D 9 8 0 8 8 7 4 7 5 | | D. Transporter's Phone 310-983-8855 | | |
| 9. Designated Facility Name and Site Address TREATMENT ONE 5738 CHESWOOD ST. HOUSTON, TEXAS 77087 | | 10. US EPA ID Number T X D 0 5 5 1 3 5 3 8 8 | | E. State Transporter's ID | | |
| | | | | F. Transporter's Phone 714-892-6645 | | |
| | | | | G. State Facility's ID 50267 | | |
| | | | | H. Facility's Phone 713-645-8710 | | |
| 11A. HM | 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | Waste No. |
| X | a. WASTE HYDROCHLORIC ACID, CORROSIVE MATERIAL UN1789 (D002) | 0 0 1 | D M | 0 0 0 0 5 | G | 978400 |
| | b. | | | | | |
| | c. | | | | | |
| | d. | | | | | |
| J. Additional Descriptions for Materials Listed Above 11A) LAB PACK DRUM #5 1 X 30 | | | | K. Handling Codes for Wastes Listed Above | | |
| 15. Special Handling Instructions and Additional Information USE GLOVES AND GOGGLES APPROVAL #43-5025 EMERGENCY RESPONSE GUIDE #60 24 HOUR EMERGENCY CONTACT: CHEMTREC 800-424-9300 REMANIFESTED FROM #00100585 | | | | | | |
| 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. | | | | | | |
| Printed/Typed Name <i>Holly M. Carthy</i> | | Signature <i>Holly M. Carthy</i> | | Month Day Year <i>09 20 92</i> | | |
| 17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>Robert R. Hardman</i> | | Signature <i>Robert R. Hardman</i> | | Date <i>09 20 92</i> | | |
| 18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name <i>Kirk Hansen</i> | | Signature <i>Kirk Hansen</i> | | Date <i>10 23 92</i> | | |
| 19. Discrepancy Indication Space Final Approval Subject to Verification of Contents & Volume | | | | | | |
| 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. | | | | | | |
| Printed/Typed Name <i>GWEN FOSTER</i> | | Signature <i>Gwen Foster</i> | | Date <i>11 02 92</i> | | |

StarKist Samoa Inc.

An Affiliate of StarKist Seafood Company



P.O. Box 368
Pago Pago, Tutuila Islands
American Samoa 96799
Telephone: 684-644-4231
Facsimile: 684-644-2440

Rcd 12/5/94
Copy to Mike

November 22, 1994

Mr. Norman Lovelace
OPINAP (E-4)
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

Mr. Togipa Tausaga
ASEPA
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

Gentlemen:

Re: Discharge Monitoring Report for the Months of August, September and October 1994 under NPDES No. 0000019 as issued to Starkist Samoa, Inc.

Attached is StarKist Samoa's Discharge Monitoring Reports covering the months of August, September and October of 1994.

The following paragraphs summarize the plant's permit violations:

Total Nitrogen:

StarKist Samoa met all effluent limitations except for the monthly Total Nitrogen (TN) averages in August and daily maximum for Total nitrogen (TN) on August 12, 1994.

The plant had mechanical problems on the High Strength Waste (HSW) pumps which cause the high strength liquids to overflow to the treatment plant and resulted in a higher than normal total nitrogen (TN) loadings. The problem was corrected the same day and the plant was back to normal.

Temperature:

The maximum daily temperature limit of 95 F was exceeded on September 17, 1994 for 25 minutes. This took place on a non-production day and corrective action was carried out immediately.



Page 2

Sincerely,

StarKist Samoa, Inc.

A handwritten signature in dark ink, appearing to read "Virgil Shouse", written over the printed name.

VIRGIL SHOUSE
Cannery Manufacturing Manager

VS\ht:\npdes\samoa

Attachments

cc: Ms. Sheila Wiegman
Mr. Barry Mills
Ms. Pat Young
Mr. Norman Wei

NAME STAK-KIST SAMOA, INC.
ADDRESS P.O. BOX 368
PAGO PAGO, AMERICAN SAMOA 96799

DISCHARGE MONITORING REPORT (DMR)
(2-16) (17-19)

AS 0000019
PERMIT NUMBER

001
DISCHARGE NUMBER

Form Approved
OMB No. 2040-1
Expires 3-31-80

FACILITY _____
LOCATION _____

MONITORING PERIOD

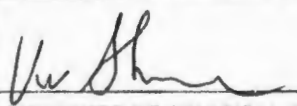
FROM YEAR MO DAY TO YEAR MO DAY
94 08 01 94 08 31
(20 21) (22 23) (24 25) (26 27) (28 29) (30 31)

NOTE: Read instructions before completing this form

| PARAMETER (12-17) | | (3 Card Only) QUANTITY OR LOADING (46-53) | | | (4 Card Only) QUALITY OR CONCENTRATION (54-61) | | | NO. EX (62-63) | FREQUENCY OF ANALYSIS (64-68) | SAMPLE TYPE (69-71) |
|----------------------|--------------------|---|---------|---------|--|---------|---------|----------------------|--|---------------------------|
| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | | | |
| FLOW | SAMPLE MEASUREMENT | 1.2246 | 1.6356 | mgd | | | | 0 | continuous | |
| | PERMIT REQUIREMENT | | 2.9 | | | | | | | |
| BOD | SAMPLE MEASUREMENT | | | | 298 | 335 | 371 | 0 | 2/mo | composi |
| | PERMIT REQUIREMENT | | | | N/A | N/A | N/A | | | |
| TSS | SAMPLE MEASUREMENT | 828 | 2501 | lbs/day | 27.5 | 79.3 | 236.8 | 0 | 2/wk | composi |
| | PERMIT REQUIREMENT | 2653 | 6673 | | N/A | N/A | N/A | | | |
| OIL & GREASE | SAMPLE MEASUREMENT | 304 | 889 | lbs/day | 6.6 | 26.9 | 84.2 | 0 | 2/wk | composi |
| | PERMIT REQUIREMENT | 675 | 1688 | | N/A | N/A | N/A | | | |
| TP | SAMPLE MEASUREMENT | 69 | 199 | lbs/day | 1.2 | 6.8 | 18.8 | 0 | 2/wk | composi |
| | PERMIT REQUIREMENT | 192 | 309 | | N/A | N/A | N/A | | | |
| TN | SAMPLE MEASUREMENT | 1248 | 2778 | lbs/day | 20.9 | 117.4 | 263 | 2 | 2/wk | composi |
| | PERMIT REQUIREMENT | 1200 | 2100 | | N/A | N/A | N/A | | | |
| TOTAL AMMONIA | SAMPLE MEASUREMENT | | | | 16.5 | 50.6 | 119 | 0 | 1/wk | composi |
| | PERMIT REQUIREMENT | | | | N/A | N/A | 133 | | | |

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
VIRGIL SHOUSE
Manager, Cannery Manufacturing
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$11,000 and/or maximum imprisonment of between 6 months and 5 years.


SIGNATURE OF PRINCIPAL EXECUTIVE
OFFICER OR AUTHORIZED AGENT

TELEPHONE
684 644-4231
AREA CODE NUMBER
DATE
94 11 23
YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. FIRM NAME/ADDRESS (Include Name/Location if different)

STAR-KIST SAMOA, INC
P.O. Box 368
PAGO PAGO, AMERICAN SAMOA
96799
CITY
ATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

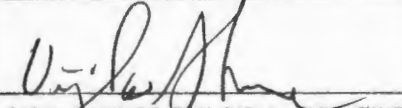
(2-16) (17-19)
AS 0000019 001
PERMIT NUMBER DISCHARGE NUMBER

Form Approved
OMB No. 2040-01
Expires 3-31-88

MONITORING PERIOD
FROM YEAR MO DAY TO YEAR MO DAY
94 08 01 94 08 31
(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form

| PARAMETER (32-37) | | (3 Card Only) QUANTITY OR LOADING (46-53) | | | (4 Card Only) QUALITY OR CONCENTRATION (54-61) | | | NO. EX (62-63) | FREQUENCY OF ANALYSIS (64-68) | SAMPLING TIME (69) |
|----------------------|--------------------|---|---------|-------|--|---------|---------|----------------------|--|--------------------------|
| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | | | |
| TEMPERATURE | SAMPLE MEASUREMENT | | | | 78 | 84 | 95 | °F | 0 | continuous |
| | PERMIT REQUIREMENT | | | | | 90 | 95 | | | |
| pH | SAMPLE MEASUREMENT | | | | 6.5 | | 7.4 | | 0 | continuous |
| | PERMIT REQUIREMENT | | | | 6.5 | | 8.6 | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |

| | | | | | |
|---|---|---|--------------|-------|----|
| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER VIRGIL SHOUSE Manager, Cannery Manufacturing TYPED OR PRINTED | I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1318. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.) | TELEPHONE | | DATE | |
| | | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  | 684 644-4231 | 94 11 | 23 |

CONTENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the Month of

August 1994

| Date | Production Tons | Flow mgd | Alum #/day | Poly #/day | Max Temp F | pH Limits | | Oil & Grease | | TSS | | TP | | TN | | Tot Ammonia Eff mg/l | BOD Eff mg/l |
|------|--------------------|-------------|---------------|---------------|------------------|-----------|-----|--------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|----------------------------|--------------------|
| | | | | | | Lo | Hi | Eff mg/l | Total #/day | Eff mg/l | Total #/day | Eff mg/l | Total #/day | Eff mg/l | Total #/day | | |
| 1 | 467.120 | 1.2443 | 1056.0 | 30.6 | 84 | 7.1 | 7.2 | | | | | | | | | | |
| 2 | 473.965 | 1.3928 | 1128.0 | 32.1 | 83 | 7.0 | 7.2 | | | | | | | | | | |
| 3 | 466.091 | 1.3834 | 1140.0 | 32.8 | 82 | 6.9 | 7.1 | 21.1 | 243 | 62.0 | 713 | 3.6 | 41 | 133.0 | 1530 | 74.7 | |
| 4 | 492.386 | 1.3659 | 1116.0 | 32.4 | 84 | 6.8 | 7.0 | 6.6 | 75 | 45.5 | 517 | 3.0 | 34 | 96.4 | 1095 | | |
| 5 | 415.465 | 1.2544 | 1104.0 | 32.8 | 90 | 6.9 | 7.0 | | | | | | | | | | |
| 6 | 0.000 | 0.6740 | 552.0 | 17.0 | 91 | 6.8 | 7.0 | | | | | | | | | | |
| 7 | 0.000 | 1.0064 | 864.0 | 25.2 | 84 | 6.9 | 7.1 | 7.2 | 60 | 27.5 | 230 | 1.2 | 10 | 20.9 | 175 | 16.5 | |
| 8 | 508.918 | 1.2333 | 1080.0 | 32.0 | 84 | 6.9 | 7.0 | 15.2 | 156 | 46.0 | 472 | 2.9 | 30 | 77.5 | 795 | 29.9 | |
| 9 | 416.586 | 1.2446 | 1092.0 | 31.5 | 86 | 7.0 | 7.4 | 65.0 | 673 | 93.0 | 963 | 8.1 | 84 | 123.0 | 1273 | 64.8 | |
| 10 | 455.934 | 1.2244 | 1068.0 | 30.9 | 84 | 6.8 | 7.1 | 36.2 | 369 | 78.5 | 799 | 5.8 | 59 | 106.0 | 1079 | 46.1 | 371 |
| 11 | 396.070 | 1.1856 | 996.0 | 30.2 | 85 | 6.9 | 7.1 | 46.8 | 461 | 57.3 | 565 | 6.2 | 61 | 102.0 | 1006 | 51.2 | |
| 12 | 403.165 | 1.2700 | 1200.0 | 34.0 | 86 | 6.7 | 7.3 | 84.2 | 889 | 236.8 | 2501 | 18.8 | 199 | 263.0 | 2778 | 119.0 | |
| 13 | 0.000 | 0.9067 | 744.0 | 22.1 | 91 | 7.0 | 7.1 | 20.3 | 153 | 47.0 | 354 | 16.4 | 124 | 169.0 | 1274 | | |
| 14 | 0.000 | 1.1522 | 960.0 | 29.0 | 95 | 6.9 | 7.4 | | | | | | | | | | |
| 15 | 399.387 | 1.4080 | 1188.0 | 35.0 | 80 | 6.7 | 7.3 | | | | | | | | | | |
| 16 | 340.764 | 1.2371 | 1140.0 | 31.5 | 86 | 7.0 | 7.2 | 10.3 | 106 | 119.0 | 1224 | 6.9 | 71 | 115.0 | 1183 | 36.8 | |
| 17 | 350.881 | 1.1060 | 912.0 | 27.7 | 86 | 6.9 | 7.2 | 14.7 | 135 | 166.5 | 1531 | 5.1 | 47 | 55.2 | 508 | 18.4 | 298 |
| 18 | 327.996 | 1.3600 | 1164.0 | 34.3 | 86 | 6.8 | 7.2 | | | | | | | | | | |
| 19 | 308.196 | 1.2262 | 1116.0 | 31.5 | 89 | 6.6 | 6.9 | | | | | | | | | | |
| 20 | 0.000 | 0.4772 | 384.0 | 12.6 | 90 | 6.8 | 7.1 | | | | | | | | | | |
| 21 | 0.000 | 1.0979 | 924.0 | 26.8 | 82 | 6.9 | 7.2 | | | | | | | | | | |
| 22 | 401.264 | 1.3697 | 1140.0 | 34.3 | 82 | 6.7 | 7.1 | | | | | | | | | | |
| 23 | 392.974 | 1.4325 | 1200.0 | 35.3 | 83 | 6.8 | 7.2 | 54.2 | 646 | 61.0 | 727 | 5.8 | 69 | 140.0 | 1668 | 41.9 | |
| 24 | 411.606 | 1.3682 | 1128.0 | 35.3 | 83 | 6.9 | 7.2 | 12.6 | 143 | 61.5 | 700 | 9.4 | 107 | 155.0 | 1764 | 58.2 | |
| 25 | 381.740 | 1.5275 | 1272.0 | 37.8 | 83 | 6.5 | 6.9 | | | | | | | | | | |
| 26 | 329.652 | 1.2309 | 1080.0 | 37.8 | 88 | 6.6 | 6.8 | | | | | | | | | | |
| 27 | 0.000 | 0.8747 | 732.0 | 23.6 | 90 | 6.8 | 7.0 | | | | | | | | | | |
| 28 | 0.000 | 1.1080 | 960.0 | 29.0 | 82 | 6.9 | 7.0 | | | | | | | | | | |
| 29 | 470.347 | 1.4858 | 1224.0 | 37.2 | 84 | 6.8 | 7.2 | | | | | | | | | | |
| 30 | 493.425 | 1.4806 | 1236.0 | 37.8 | 83 | 6.9 | 7.0 | 27.5 | 339 | 53.0 | 653 | 6.4 | 79 | 145.0 | 1785 | 49.7 | |
| 31 | 452.036 | 1.6356 | 1320.0 | 38.1 | 85 | 6.6 | 6.8 | 8.2 | 112 | 35.0 | 476 | 2.1 | 29 | 59.4 | 808 | | |
| TOT. | 9555.968 | 37.9639 | 32220.0 | 958.2 | | | | | 4559 | | 12425 | | 1043 | | 18720 | | |
| AVG | 415.477 | 1.2246 | 1039.4 | 30.9 | 86 | | | 26.9 | 304 | 79.3 | 828 | 6.8 | 70 | 117.4 | 1248 | 50.6 | 335 |

NAME STAR-KIST SAMOA, INC.
 ADDRESS P.O. BOX 368
PAGO PAGO, AMERICAN SAMOA 96799
 FACILITY _____
 LOCATION _____

DISCHARGE MONITORING REPORT (DMR)
 (2-16) (17-19)

AS 0000019
 PERMIT NUMBER

001
 DISCHARGE NUMBER

Form Approved
 OMB No. 2040-1
 Expires 3-31-83

| MONITORING PERIOD | | | | | | |
|-------------------|---------|---------|----|---------|---------|---------|
| YEAR | MO | DAY | TO | YEAR | MO | DAY |
| 94 | 09 | 01 | | 94 | 09 | 30 |
| (20-21) | (22-23) | (24-25) | | (26-27) | (28-29) | (30-31) |

NOTE: Read instructions before completing this form

| PARAMETER (32) | | (3 Card Only) QUANTITY OR LOADING (46-53) | | | (4 Card Only) QUALITY OR CONCENTRATION (54-61) | | | NO. EX (62-63) | FREQUENCY OF ANALYSIS (64-68) | SAMPLE TYPE (69) |
|-------------------|--------------------|---|---------|---------|--|---------|---------|----------------------|--|------------------------|
| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | | | |
| FLOW | SAMPLE MEASUREMENT | 1.0522 | 1.7152 | mgd | | | | 0 | continuous | |
| | PERMIT REQUIREMENT | | 2.9 | | | | | | | |
| BOD | SAMPLE MEASUREMENT | | | | 262 | 405.1 | 549 | 0 | 2/mo | compos |
| | PERMIT REQUIREMENT | | | | N/A | N/A | N/A | | | |
| TSS | SAMPLE MEASUREMENT | 410 | 845 | lbs/day | 12.5 | 42.3 | 87.3 | 0 | 2/wk | compos |
| | PERMIT REQUIREMENT | 2653 | 6673 | | N/A | N/A | N/A | | | |
| OIL & GREASE | SAMPLE MEASUREMENT | 181 | 563 | lbs/day | 3.9 | 19.4 | 49.9 | 0 | 2/wk | compos |
| | PERMIT REQUIREMENT | 675 | 1688 | | N/A | N/A | N/A | | | |
| TP | SAMPLE MEASUREMENT | 42 | 115 | lbs/day | 1.3 | 4.3 | 11.9 | 0 | 2/wk | compos |
| | PERMIT REQUIREMENT | 192 | 309 | | N/A | N/A | N/A | | | |
| TN | SAMPLE MEASUREMENT | 823 | 2004 | lbs/day | 30.7 | 84.2 | 207 | 0 | 2/wk | compos |
| | PERMIT REQUIREMENT | 1200 | 2100 | | N/A | N/A | N/A | | | |
| TOTAL AMMONIA | SAMPLE MEASUREMENT | | | | 20.9 | 35.3 | 61.2 | 0 | 1/wk | compos |
| | PERMIT REQUIREMENT | | | | N/A | N/A | 133 | | | |

NAME/TITLE: PRINCIPAL EXECUTIVE OFFICER
VIRGIL SHOUSE
 Manager, Cannery Manufacturing
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.

Virgil Shouse
 SIGNATURE OF PRINCIPAL EXECUTIVE
 OFFICER OR AUTHORIZED AGENT

| TELEPHONE | | DATE | | |
|-----------|----------|------|----|-----|
| 684 | 644-4231 | 94 | 11 | 23 |
| AREA CODE | NUMBER | YEAR | MO | DAY |

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include
City Name/Location if different)

NAME STAR-KIST SAMOA, INC
ADDRESS P.O. Box 368
PAGO PAGO, AMERICAN SAMOA
96799

ACTIVITY _____
LOCATION _____

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

(1-19)

AS 0000019

PERMIT NUMBER

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0

Expires 3-31-88

MONITORING PERIOD

FROM YEAR MO DAY TO YEAR MO DAY
94 09 01 94 09 30
(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form.

| PARAMETER (32-47) | | (3 Card Only) QUANTITY OR LOADING (46-53) | | | (4 Card Only) QUALITY OR CONCENTRATION (54-61) | | | UNITS | NO. EX (62-63) | FREQUENCY OF ANALYSIS (64-68) | SAMPLE TIME (69) |
|----------------------|--------------------|---|---------|-------|--|---------|---------|-------|----------------------|--|------------------------|
| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | | | | |
| TEMPERATURE | SAMPLE MEASUREMENT | | | | 76 | 85 | 96 | °F | 1 | continuous | |
| | PERMIT REQUIREMENT | | | | | 90 | 95 | | | | |
| PH | SAMPLE MEASUREMENT | | | | 6.5 | | 7.4 | | 0 | continuous | |
| | PERMIT REQUIREMENT | | | | 6.5 | | 8.6 | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | | |

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

VIRGIL SHOUSE
Manager, Cannery Manufacturing

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.

SIGNATURE OF PRINCIPAL EXECUTIVE
OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

684
AREA
CODE

644-4231
NUMBER

94
YEAR

11
MO

23
DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the Month of

September 1994

| Date | Production Tons | Flow mgd | Alum #/day | Poly #/day | Max Temp F | pH Limits | | Oil & Grease | | TSS | | TP | | TN | | Tot Ammonia Eff mg/l | BOD Eff mg/l |
|------|--------------------|-------------|---------------|---------------|------------------|-----------|-----|--------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|----------------------------|--------------------|
| | | | | | | Lo | Hi | Eff mg/l | Total #/day | Eff mg/l | Total #/day | Eff mg/l | Total #/day | Eff mg/l | Total #/day | | |
| 1 | 413.816 | 1.7152 | 1440.0 | 43.5 | 85 | 6.8 | 7.0 | | | | | | | | | | |
| 2 | 434.618 | 1.0320 | 1104.0 | 32.4 | 89 | 7.0 | 7.2 | | | | | | | | | | |
| 3 | 0.000 | 0.1350 | 108.0 | 3.2 | 80 | 7.0 | 7.1 | | | | | | | | | | |
| 4 | 0.000 | 0.5920 | 432.0 | 13.5 | 81 | 7.2 | 7.3 | | | | | | | | | | |
| 5 | 0.000 | 1.1051 | 936.0 | 27.4 | 82 | 7.2 | 7.4 | | | | | | | | | | |
| 6 | 451.358 | 1.2349 | 1068.0 | 30.9 | 86 | 6.8 | 6.9 | | | | | | | | | | |
| 7 | 453.367 | 1.1641 | 1080.0 | 32.0 | 85 | 6.9 | 7.0 | 7.7 | 75 | 87.3 | 845 | 11.9 | 115 | 207.0 | 2004 | 61.2 | |
| 8 | 437.924 | 1.3566 | 1200.0 | 34.7 | 85 | 6.9 | 7.2 | 49.9 | 563 | 62.5 | 705 | 5.3 | 59 | 140.0 | 1579 | | |
| 9 | 430.206 | 1.1452 | 996.0 | 29.9 | 90 | 6.5 | 6.7 | | | | | | | | | | |
| 10 | 0.000 | 0.5002 | 372.0 | 11.0 | 90 | 6.6 | 6.9 | | | | | | | | | | |
| 11 | 0.000 | 0.8995 | 708.0 | 21.0 | 86 | 6.5 | 6.8 | 43.4 | 325 | 49.0 | 367 | 1.4 | 10 | 30.7 | 230 | | |
| 12 | 450.591 | 1.2307 | 1032.0 | 29.6 | 87 | 6.5 | 7.0 | 16.8 | 172 | 43.5 | 445 | 3.4 | 34 | 75.4 | 772 | 23.0 | |
| 13 | 431.159 | 1.2692 | 1008.0 | 34.0 | 86 | 6.8 | 7.1 | 3.9 | 41 | 35.5 | 375 | 2.3 | 24 | 69.6 | 735 | | |
| 14 | 464.726 | 1.3669 | 1224.0 | 35.9 | 85 | 6.7 | 7.2 | 18.8 | 214 | 29.0 | 330 | 4.0 | 46 | 57.7 | 656 | 32.2 | |
| 15 | 475.546 | 1.2447 | 1028.0 | 33.4 | 86 | 7.0 | 7.3 | 7.1 | 73 | 29.5 | 305 | 5.0 | 52 | 97.4 | 1008 | | |
| 16 | 429.074 | 0.8908 | 744.0 | 22.1 | 88 | 6.9 | 7.0 | 19.2 | 142 | 38.5 | 285 | 5.8 | 43 | 111.0 | 822 | 49.2 | |
| 17 | 0.000 | 0.8136 | 672.0 | 20.2 | 94 | 6.8 | 6.9 | 27.1 | 183 | 12.5 | 85 | 1.3 | 9 | 31.4 | 212 | 29.0 | |
| 18 | 0.000 | 0.9095 | 792.0 | 22.1 | 84 | 6.6 | 6.8 | | | | | | | | | | |
| 19 | 451.022 | 1.1486 | 972.0 | 27.7 | 85 | 6.5 | 6.9 | | | | | | | | | | |
| 20 | 395.526 | 1.1944 | 1020.0 | 29.0 | 88 | 7.0 | 7.1 | 13.8 | 137 | 41.0 | 407 | 5.5 | 55 | 60.6 | 602 | 31.8 | 262 |
| 21 | 391.147 | 1.1806 | 1008.0 | 28.4 | 86 | 6.9 | 7.1 | 7.5 | 74 | 33.0 | 324 | 5.3 | 52 | 84.5 | 830 | | |
| 22 | 403.458 | 1.0452 | 840.0 | 25.2 | 88 | 6.8 | 6.9 | | | | | | | | | | |
| 23 | 359.456 | 1.1116 | 936.0 | 27.7 | 86 | 6.6 | 6.8 | | | | | | | | | | |
| 24 | 0.000 | 0.6093 | 504.0 | 16.4 | 88 | 6.8 | 7.0 | | | | | | | | | | |
| 25 | 0.000 | 0.9800 | 804.0 | 24.6 | 80 | 6.7 | 6.9 | | | | | | | | | | |
| 26 | 445.628 | 1.1198 | 900.0 | 25.2 | 82 | 6.9 | 7.0 | | | | | | | | | | |
| 27 | 360.737 | 1.1530 | 960.0 | 28.4 | 86 | 6.6 | 6.8 | 19.5 | 187 | 49.0 | 470 | 2.3 | 22 | 77.9 | 747 | 20.9 | 549 |
| 28 | 382.033 | 1.1643 | 984.0 | 29.0 | 84 | 6.5 | 6.9 | 17.7 | 171 | 40.0 | 387 | 3.0 | 29 | 51.6 | 500 | | |
| 29 | 441.447 | 1.2196 | 1068.0 | 30.6 | 85 | 6.6 | 6.7 | | | | | | | | | | |
| 30 | 404.619 | 1.0334 | 828.0 | 27.1 | 89 | 6.8 | 7.0 | | | | | | | | | | |
| TOT. | 8907.458 | 31.5650 | 26768.0 | 796.1 | | | | | 2357 | | 5329.8 | | 549 | | 10696 | | |
| AVG | 424.165 | 1.0522 | 892.3 | 26.5 | 86 | | | 19.4 | 181 | 42.3 | 410 | 4.3 | 42 | 84.2 | 823 | 35.3 | 405.1 |

WITTEE NAME/ADDRESS
Facility Name/Location if different)
NAME STAR KIST SAMOA, INC.
ADDRESS P.O. BOX 368
PAGO PAGO, AMERICAN SAMOA 96799
FACILITY
LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)
(2-16) (17-19)

AS 0000019
PERMIT NUMBER

001
DISCHARGE NUMBER

Form Approved
OMB No. 2040-1
Expires 3-31-88

| MONITORING PERIOD | | | | | | | | | | | |
|-------------------|--|--|---------|--|--|---------|--|--|---------|--|--|
| YEAR | | | MO | | | DAY | | | | | |
| 94 | | | 10 | | | 01 | | | | | |
| (20-21) | | | (22-23) | | | (24-25) | | | | | |
| TO | | | YEAR | | | MO | | | DAY | | |
| | | | 94 | | | 10 | | | 31 | | |
| | | | (26-27) | | | (28-29) | | | (30-31) | | |

NOTE: Read instructions before completing this form

| PARAMETER (32-37) | | (3 Card Only) QUANTITY OR LOADING (46-53) | | | (4 Card Only) QUALITY OR CONCENTRATION (54-61) | | | NO. EX (62-63) | FREQUENCY OF ANALYSIS (64-68) | SAMPLING TYPE (69-71) |
|----------------------|--------------------|---|---------|---------|--|---------|---------|----------------------|--|-----------------------------|
| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | | | |
| FLOW | SAMPLE MEASUREMENT | 0.8402 | 1.3637 | mgd | | | | 0 | continuous | |
| | PERMIT REQUIREMENT | | 2.9 | | | | | | | |
| | SAMPLE MEASUREMENT | | | | 295 | 338 | 381 | 0 | 2/mo | composit |
| | PERMIT REQUIREMENT | | | | N/A | N/A | N/A | | | |
| TSS | SAMPLE MEASUREMENT | 582 | 1610 | lbs/day | 31.5 | 60.8 | 142 | 0 | 2/wk | composit |
| | PERMIT REQUIREMENT | 2653 | 6673 | | N/A | N/A | N/A | | | |
| OIL & GREASE | SAMPLE MEASUREMENT | 228 | 583 | lbs/day | 5.6 | 22.3 | 51.4 | 0 | 2/wk | composit |
| | PERMIT REQUIREMENT | 675 | 1688 | | N/A | N/A | N/A | | | |
| TP | SAMPLE MEASUREMENT | 27 | 53 | lbs/day | 0.6 | 3.0 | 6.4 | 0 | 2/wk | composit |
| | PERMIT REQUIREMENT | 192 | 309 | | N/A | N/A | N/A | | | |
| | SAMPLE MEASUREMENT | 549 | 756 | lbs/day | 14.2 | 58.1 | 76.9 | 0 | 2/wk | composit |
| | PERMIT REQUIREMENT | 1200 | 2100 | | N/A | N/A | N/A | | | |
| TOTAL AMMONIA | SAMPLE MEASUREMENT | | | | 10.1 | 27.3 | 47.1 | | 1/wk | composit |
| | PERMIT REQUIREMENT | | | | N/A | N/A | 133 | | | |

| | | | | | | | |
|--|--|---|---|--|--------------------------|--|--|
| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER | | I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years. | TELEPHONE | | DATE | | |
| VIRGIL SHOUSE Manager, Cannery Manufacturing | | | 684 644-4231 | | 94 11 23 | | |
| TYPED OR PRINTED | | | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA CODE NUMBER YEAR MO | | |
| COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) | | | | | | | |

WITNESS NAME/ADDRESS (Include
City/State/Zip)

STAR KIST SAMOA, INC
P.O. Box 368
PAGO PAGO, AMERICAN SAMOA
96799
DUTY
ATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

(17-19)

AS 0000019

PERMIT NUMBER

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0047

Expires 3-31-83

MONITORING PERIOD

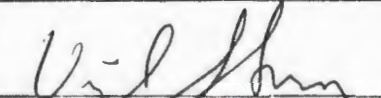
| FROM | YEAR | MO | DAY | TO | YEAR | MO | DAY |
|------|---------|---------|---------|----|---------|---------|---------|
| | 94 | 10 | 01 | | 94 | 10 | 31 |
| | (20-21) | (22-23) | (24-25) | | (26-27) | (28-29) | (30-31) |

NOTE: Read instructions before completing this form.

| PARAMETER (42-47) | | (3 Card Only) QUANTITY OR LOADING (46-53) | | | (4 Card Only) QUALITY OR CONCENTRATION (54-61) | | | NO. EX (62-63) | FREQUENCY OF ANALYSIS (64-68) | SAMPLE TYPE (69-71) |
|----------------------|--------------------|---|---------|-------|--|---------|---------|----------------------|--|---------------------------|
| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | | | |
| TEMPERATURE | SAMPLE MEASUREMENT | | | | 76 | 83 | 94 | °F | 0 | continuous |
| | PERMIT REQUIREMENT | | | | | 90 | 95 | | | |
| | SAMPLE MEASUREMENT | | | | 6.3 | | 9.8 | | 0 | continuous |
| | PERMIT REQUIREMENT | | | | 6.5 | | 8.6 | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |
| | SAMPLE MEASUREMENT | | | | | | | | | |
| | PERMIT REQUIREMENT | | | | | | | | | |

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)


SIGNATURE OF PRINCIPAL EXECUTIVE
OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

VIRGIL SHOUSE

Manager, Cannery Manufacturing

TYPED OR PRINTED

684

644-4231

94

11

23

AREA
CODE

NUMBER

YEAR

MO

DAY

CONTENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the Month of

October 1994

| Date | Production Tons | Flow mgd | Alum #/day | Poly #/day | Max Temp F | pH Limits | | Oil & Grease | | TSS | | TP | | TN | | Tot Ammonia Eff mg/l | BOD Eff mg/l |
|------|--------------------|-------------|---------------|---------------|------------------|-----------|-----|--------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|----------------------------|--------------------|
| | | | | | | Lo | Hi | Eff mg/l | Total #/day | Eff mg/l | Total #/day | Eff mg/l | Total #/day | Eff mg/l | Total #/day | | |
| 1 | 0.000 | 0.5967 | 576.0 | 12.0 | 89 | 6.8 | 6.9 | | | | | | | | | | |
| 2 | 0.000 | 0.7970 | 720.0 | 19.6 | 86 | 6.6 | 6.8 | | | | | | | | | | |
| 3 | 426.624 | 0.9288 | 900.0 | 22.6 | 86 | 6.7 | 6.8 | | | | | | | | | | |
| 4 | 409.829 | 1.3637 | 1128.0 | 32.2 | 84 | 6.7 | 6.9 | 51.4 | 583 | 142.0 | 1610 | 3.2 | 36 | 61.9 | 702 | 26.4 | 381 |
| 5 | 432.894 | 1.3425 | 1140.0 | 30.7 | 81 | 6.5 | 7.1 | | | | | | | | | | |
| 6 | 436.606 | 1.3235 | 1152.0 | 35.5 | 83 | 6.5 | 7.2 | 49.4 | 544 | 56.7 | 624 | 2.5 | 27 | 68.7 | 756 | | 295 |
| 7 | 391.363 | 0.9640 | 840.0 | 24.4 | 87 | 6.7 | 7.0 | | | | | | | | | | |
| 8 | 0.000 | 0.5138 | 408.0 | 12.6 | 90 | 6.9 | 7.1 | | | | | | | | | | |
| 9 | 0.000 | 0.3472 | 288.0 | 8.4 | 90 | 6.9 | 7.3 | | | | | | | | | | |
| 10 | 0.000 | 0.2707 | 210.0 | 5.8 | 86 | 7.6 | 8.1 | | | | | | | | | | |
| 11 | 0.000 | 0.4260 | 324.0 | 10.8 | 86 | 7.5 | 7.7 | | | | | | | | | | |
| 12 | 0.000 | 0.4996 | 432.0 | 13.5 | 82 | 7.5 | 8.2 | | | | | | | | | | |
| 13 | 0.000 | 0.6751 | 612.0 | 15.4 | 94 | 6.9 | 9.8 | | | | | | | | | | |
| 14 | 0.000 | 0.2037 | 162.0 | 5.4 | 82 | 7.6 | 7.6 | | | | | | | | | | |
| 15 | 0.000 | 0.2029 | 162.0 | 5.4 | 80 | 7.0 | 7.0 | | | | | | | | | | |
| 16 | 0.000 | 0.9235 | 840.0 | 21.1 | 84 | 6.6 | 7.3 | 14.8 | 114 | 31.5 | 242 | 0.6 | 5 | 14.2 | 109 | | |
| 17 | 440.084 | 1.2175 | 936.0 | 23.5 | 85 | 6.6 | 6.8 | 17.4 | 176 | 36.5 | 370 | 1.9 | 19 | 50.7 | 513 | 10.1 | |
| 18 | 380.667 | 1.2433 | 960.0 | 24.1 | 84 | 6.3 | 7.4 | 19.3 | 200 | 88.5 | 915 | 5.1 | 53 | 57.5 | 595 | | |
| 19 | 427.730 | 1.2593 | 960.0 | 30.1 | 83 | 6.8 | 7.2 | 5.6 | 59 | 49.0 | 513 | 2.5 | 27 | 58.5 | 613 | 21.5 | |
| 20 | 410.869 | 1.1829 | 945.6 | 29.6 | 85 | 6.8 | 7.3 | 14.8 | 146 | 45.5 | 448 | 2.3 | 23 | 62.1 | 611 | | |
| 21 | 428.934 | 0.9101 | 888.0 | 22.3 | 86 | 6.8 | 7.5 | 9.8 | 74 | 37.5 | 284 | 3.9 | 29 | 76.9 | 582 | 47.1 | |
| 22 | 0.000 | 0.5595 | 432.0 | 13.5 | 84 | 7.0 | 7.3 | 5.8 | 27 | 79.0 | 368 | 6.4 | 30 | 61.7 | 287 | | |
| 23 | 0.000 | 0.6362 | 528.0 | 16.6 | 85 | 7.1 | 7.5 | | | | | | | | | | |
| 24 | 427.180 | 0.9385 | 768.0 | 24.1 | 84 | 7.4 | 7.8 | | | | | | | | | | |
| 25 | 421.195 | 1.0854 | 912.0 | 28.6 | 85 | 7.1 | 7.3 | | | | | | | | | | |
| 26 | 446.605 | 1.2753 | 1032.0 | 32.4 | 84 | 6.8 | 7.2 | 37.1 | 393 | 61.3 | 650 | 2.7 | 29 | 64.3 | 682 | 31.3 | |
| 27 | 451.525 | 1.1238 | 960.0 | 24.1 | 84 | 6.8 | 7.4 | 20.3 | 190 | 40.9 | 382 | 2.2 | 20 | 63.1 | 590 | | |
| 28 | 401.897 | 1.0145 | 864.0 | 24.1 | 86 | 7.3 | 7.4 | | | | | | | | | | |
| 29 | 0.000 | 0.4856 | 432.0 | 13.5 | 86 | 7.3 | 7.3 | | | | | | | | | | |
| 30 | 0.000 | 0.7414 | 600.0 | 18.1 | 83 | 7.2 | 7.6 | | | | | | | | | | |
| 31 | 424.995 | 0.9937 | 792.0 | 24.8 | 84 | 7.0 | 7.3 | | | | | | | | | | |
| TOT. | 6758.997 | 26.0457 | 21903.6 | 624.8 | | | | | 2505 | | 6405.4 | | 298 | | 6039 | | |
| AVG | 422.437 | 0.8402 | 706.6 | 20.2 | 85 | | | 22.3 | 228 | 60.8 | 582 | 3.0 | 27 | 58.1 | 549 | 27.3 | 338.0 |